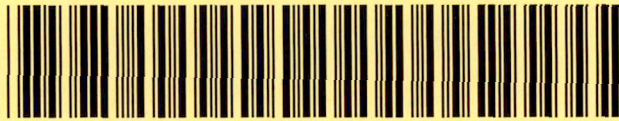


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Site Name WILLIAMS, E. W. FACILITY

DocumentType Site Assessment Rpt (SAR)

RptSegment 1

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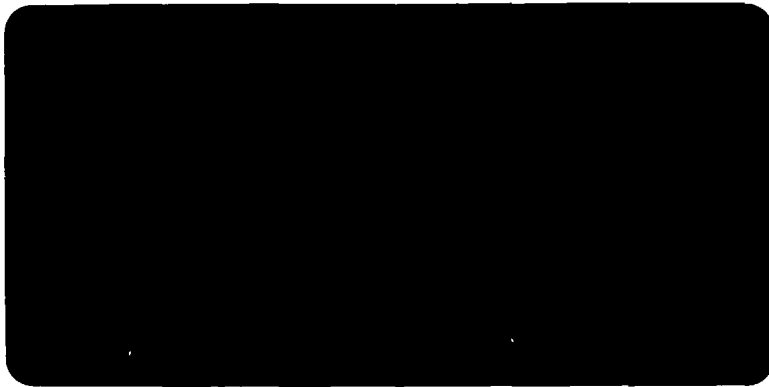
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Division WASTE MANAGEMENT

Section SUPERFUND

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DocCat FACILITY



ENGINEERING & ENVIRONMENTAL SCIENCE COMPANY

3008 ANDERSON DRIVE, SUITE 102

RALEIGH, NC 27609

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**COMPREHENSIVE SITE ASSESSMENT
(Volume I)**

STATE FILE

**E. W. Williams Facility
8200 Fayetteville Road
Raleigh, Wake County
Incident Number: 87142, Rank: 555A
June 2, 2008**

Responsible Party: E. W. Williams Construction Co, Inc.
c/o Mr. Henry Sink
P. O. Box 1471
Raleigh, NC 27602
(919) 828-5386

Property Owners: E. W. Williams Construction Co, Inc.
c/o Mr. Henry Sink
P. O. Box 1471
Raleigh, NC 27602
(919) 828-5386
&
LIEBHERR Mining & Construction Equipment
4100 Chestnut Ave.
Newport News, VA 23607-2420

Latitude: 78°42'10"W

Longitude: 35°39'46"N

Nature of Release:

Initial site investigations revealed a release primarily from three (3) aboveground storage tanks (AST's) and a concrete wash pad that were located on the west side or directly behind the facility building. The AST's contained motor oil, hydraulic fluid, and used motor oil. The wash pad was used for cleaning equipment prior to repair. Approximately 264.19 tons of contaminated soils were removed from the former AST and former wash pad area, and disposed at Soil Works, Inc. in Johnston County, NC on April 26, 2005.

Additional site investigations revealed a second release having occurred on the site. The release was detected in the former equipment maintenance, staging and storage area south of the building. This area is also known to have various fill materials or buried debris, including metal, such as minor railroad track, railroad ties, concrete and asphalt. No abatement measures have occurred in the second release area.

Soil and Groundwater contamination exist on the subject property. Concentrations exceeding the Class GA Groundwater Standards were noted in groundwater at the site. Concentrations exceeding the Soil-to-Groundwater Standards were noted in soils at the site. Metals contaminants appear to be of higher impact from the onsite releases to the subject property than any other compounds.

Prepared for:

Mr. E. W. Williams (Estate)
c/o Mr. Henry Sink
122 Washington Street
Raleigh, NC 27605
(919) 828-0684

Prepared by:

Engineering & Environmental
Science Company
3008 Anderson Drive, Suite 102
Raleigh, NC 27609
(919) 781-7798



T. Patrick Shillington, P.E.
President



ENGINEERING & ENVIRONMENTAL SCIENCE COMPANY

3008 ANDERSON DRIVE, SUITE 102

RALEIGH, NC 27609

June 2, 2008

(919) 781-7798

Mr. E. W. Williams (Estate)
c/o Mr. Henry Sink
P. O. Box 1471
Raleigh, NC 27602

RE: Comprehensive Site Assessment
E. W. Williams Facility
8200 Fayetteville Road
Raleigh, Wake County
Incident Number: 87142, Rank: 555A

Dear Mr. Henry Sink:

Engineering & Environmental Science Company (E²S) has completed the Comprehensive Site Assessment (CSA) Report for the above-referenced site. Following is an executive summary of our report.

Source Information

The subject site, known as the E.W. Williams site contains 3.58 acres and comprises two (2) separate parcels identified by Wake County as PIN 0689862418 (2.15 acres) presently owned by LIEBHERR Mining & Construction Equipment, and PIN 0689861269 (1.43 acres) presently owned by E.W. Williams, and is located at the intersection of Fayetteville Road (Hwy 401) and Crestview Drive in Fuquay-Varina, NC. According to the Wake County registry, the property was obtained in 1983 by EW Williams Construction Co, Inc from Mr. Clarence W. Gelder and wife. A portion of the property was obtained by Mr. Gelder and wife in 1981 from Bessie D. Gunther. Other portions of the property were obtained by Mr. Gelder and wife in 1972 from Marshall C. Jennette and wife. The site has a Raleigh mailing address, but was recently annexed by the Town of Fuquay-Varina. The E. W. Williams facility is located at 8200 Fayetteville Road in Raleigh, North Carolina. Equipment maintenance and storage, as well as storage of various equipment parts, scrap metal, railroad ties and equipment fluids was conducted at the subject facility. Fill materials or buried debris, including metal, such as railroad track, as well as railroad ties, concrete and asphalt are known to exist on the southern portion of the subject property. ✓

Per discussion with Mr. Williams, initial source characterization activities were conducted during a Phase I and Limited Phase II Environmental Site Assessment by Caitlin & Associates in April of 1992, for the purpose of a real estate transaction with CP&L. Reports by Caitlin & Associates could not be produced by Mr. Williams. In June

of 2003, URS Corporation conducted an additional Phase I Environmental Site Assessment on the subject for a real estate transaction with Liebherr Construction Corporation.

Through the course of these investigations, several on-site environmental concerns were identified and subsequently evaluated. Initial site investigations revealed a release primarily from three (3) aboveground storage tanks (AST's) and a concrete wash pad that were located on the west side or directly behind the facility building. The AST's contained motor oil, hydraulic fluid, and used motor oil. The wash pad was used for cleaning equipment prior to repair

Additional site investigations have revealed a second release on the site. The release was detected in the former equipment maintenance, staging and storage area south of the building. This area is also known to have various fill materials or buried debris, including metal, such as railroad track, as well as railroad ties, concrete and asphalt.

Additional groundwater contamination was noted near the northeast corner of the subject property. This contamination is likely from an upgradient source.

Initial Abatement Information

Based on results from soil and groundwater assessment work, soil excavation activities were conducted in the area of the former ASTs and former wash pad area directly behind the warehouse facility on April 26, 2005. Approximately 264.19 cubic yards of soil was removed from the AST and equipment wash pad area and transported to Soil Works, Inc in Johnston County, NC.

Receptor Information

Water Supply Wells including approximately forty-nine (49) off-site wells were identified within a 1500 ft. radius of the release during this assessment. The former on-site water supply well and one (1) downgradient adjacent water supply well were sampled during the completion of this CSA. No contaminants exceeding the reporting limits were detected in the adjacent off-site water supply well (WSW-1). A public water supply system for a residential development is located west and slightly more than 1500 ft. from the release. Public water is provided from a waterline located east and paralleling Hwy 401. The subject facility is currently connected to the public water supply system provided by the Town of Fuquay-Varina. Approximately four (4) ponds and two (2) intermittent streams are located within 1500 ft. of the release. The intermittent streams were determined by review of the Lake Wheeler USGS Quadrangle map and the USDA Soil Survey of Wake County. The closest downgradient receptor is the former intermittent stream which begins at the central south property line. Land use is primarily commercial and industrial along Hwy 401. Residential land use is primarily east and south of the subject site.

Site Hydrogeology

Per the Geologic Map of North Carolina the site lies at the interface of the Raleigh belt and the Coastal Plain. Based on the borings conducted at the site, the site lies primarily in

the Coastal Plain of the Middendorf Formation. Bedrock materials consist of sandstone and mudstone.

In accordance with the USDA Soil Survey of Wake County (1970), the developed soils are in the Wagram series (WaC). The 1970 Soil Survey also indicates an intermittent stream beginning at the north east corner of the property and diagonally passing through the site in a southwesterly direction. This intermittent stream has been filled on-site and off-site. Off-site and South of the subject property, a channel provides drainage. The intermittent stream is not shown on the current Wake County Soils Map (Source Wake County GIS).

Subsurface soil on the northern portion of the site primarily consisted of a silty and sandy CLAY (CL) altering to a silty coarse SAND (SC). Groundwater depths in this area were near 7ft to 15ft below groundsurface. Groundwater depths in the low area near the former intermittent stream were near the groundsurface. Fill materials or buried debris, including metal, such as railroad track, as well as railroad ties, concrete and asphalt are known to exist on the southern portion of the subject property. The fill depths vary, but tend to increase in depth towards to southwest along the southern portion of the property. No drums were encountered during the subsurface investigations on the subject property.

Horizontal groundwater direction is southwest towards an intermittent stream at a hydraulic gradient approximately ranging from 0.011 ft/ft on the upland ground and 0.050 ft/ft where the ground slopes downward towards the former intermittent stream. Vertical gradient is downward at 0.062 ft/ft. Horizontal groundwater velocity was estimated at 5.6 ft/year to 25 ft/year.

Soil Sampling

Initial investigative sampling activities included collection of a sample at the discharge point for the equipment washing pad and was conducted on July 7, 2003. SS-1 was collected and analysis included EPA Methods 8260 and 8270.

SS-2 was collected on July 24, 2003 from the approximate area of fill material suspected to be contaminated on the eastern portion of the property. This sample was analyzed for Total Petroleum Hydrocarbon content as gasoline (by method 5030), as diesel (by method 3550) and as oil and grease (by method 9071).

Sample results from SS-1, indicated no compounds detected by EPA Methods 8260 or 8270. At SS-2, TPH content as oil and grease was detected at a concentration of 397 parts per million (ppm).

On February 5, 2004, an additional sampling event was conducted in the area of the warehouse facility, at the location of a possible domestic waste leach field and at a surface staining area located along Crestview Drive (SS-1 through SS-13). Sample analysis during this event included EPA Methods 8260 and 8270.

Sample results from samples collected closest to the warehouse facility indicated the presence of several compounds including acetone, benzene, carbon disulfide, chlorobenzene, toluene and xylenes.

On April 26, 2005, approximately 264.19 tons of contaminated soils were removed from the former AST and former wash pad area the site and disposed at Soil Works, Inc. in Johnston County, NC. Once excavation was complete, two (2) composite samples were collected from the excavated soils and analyzed for TPH content as gasoline, diesel and oil and grease as well as for TCLP RCRA Metals Content. In addition, seven (7) sidewall samples and three (3) base samples were collected from the excavation area and analyzed using EPA Methods 8260 and 8270. Four (4) samples were also analyzed for Total RCRA Metals content from the excavation closure samples (S-20, S-24, S-25, & S-28).

Soil analytical test results from composite sampling indicated the presence of TPH content as gasoline ranging from below detectable levels to 2.41 parts per million (ppm) content as diesel ranging from 57 to 165 ppm and content as oil and grease ranging from 2,190 to 2,480 ppm. No TCLP RCRA Metals content was detected from the composite samples.

Soil closure sampling from the excavation area indicated the presence of acetone, carbon disulfide, and chlorobenzene remaining in the excavation area, but at levels below the Soil-to-Groundwater Standards. Metals detected included barium, chromium, and lead with concentrations below the Soil-to-Groundwater Standard.

E²S conducted additional soil sampling activities in February 2006. Nine (9) handauger borings were conducted in the northeast corner of the property in the area of MW-1 to determine if another release may have occurred in this area that would influence contaminant detection in MW-1, and also to determine if any barrels or other materials had been buried in this area. Four (4) samples were submitted for analytical testing in this area (CT-1, CT-3, CT-7 and CT-9). Soils were sampled to determine if an additional possible solvent or petroleum release had occurred in this area. No samples in this area revealed compounds exceeding the Soil-to-Groundwater Standard concentrations.

Soil sampling was also conducted in February 2006 on the southern portion of the subject property to identify possible impacts from buried fill and debris in this area. Soil analytical test results indicated compounds exceeding Soil-to-Groundwater standard concentrations at Test Pit 2 (TP-2F) and Test Pit 3 (TP-3F), located on the southern portion of the property in the Heavy Equipment Staging Area. Benzo(a) anthracene and Benzo(a) pyrene exceeded the standards at both locations, and Benzo (b) fluoranthene, Benzo (k) fluoranthene, Dibenz (a,h) anthracene, Indeno (1,2,3-cd) pyrene and Naphthalene exceeded the standards at only TP-3F. No other samples revealed compounds exceeding the Soil-to-Groundwater Standard concentrations during the February 2006 soil sampling activities.

In response to concerns identified in a letter from NCDENR to EW Williams, two (2) additional soil samples were collected in May 2006, one sample was collected from the waste oil excavation area (WDB-1) and sampled for Chromium and Lead, one from the wash pad discharge area (WDA) and sampled for RCRA Metals. No compounds exceeding the Soil-to-Groundwater Standard concentrations were identified during the May 2006 soil sampling activities.

E²S conducted further soil sampling activities in 2008 to define impacts to soils in the former Heavy Equipment Staging Area. Soil analytical test results indicated compounds exceeding Soil-to-Groundwater standard concentrations in SB-2A, SB-3, SB-4B, and SB-6, located on the southern portion of the property in the Heavy Equipment Staging Area. Chromium was indicated at levels above the Soil-to-Groundwater standard in SB-3, SB-4B, and SB-6. Benzo (b) fluoranthene was indicated at levels above the Soil-to-Groundwater standard in SB-2A. Benzo (a) anthracene was indicated at levels above the Soil-to-Groundwater standard in SB-2A. Benzo (a) pyrene was indicated at levels above the Soil-to-Groundwater standard in SB-2A. Dibenzo (a,h) anthracene was indicated at levels above the Soil-to-Groundwater standard in SB-2A. No other samples revealed compounds exceeding the Soil-to-Groundwater Standard concentrations during the 2008 soil sampling activities.

Groundwater Sampling

On July 7, 2003, E²S sampled one on-site monitoring well (MW-1) and the on-site water supply well (WSW) to determine if soil contamination detected had impacted the groundwater on the subject property. Samples were analyzed using EPA Methods 601, 602 w/IPE EDB, MTBE & Xylenes, and 625. MW-1 was installed by Caitlin & Associates in 1992; four (4) other wells were installed on the property but could not be located.

On November 20, 2003, E²S observed the installation of four (4) additional monitoring wells at the subject property. Once the wells were complete, samples were collected on November 21, 2003 and analyzed using EPA Method 8260. The onsite WSW was also sampled during these events.

Groundwater analytical test results from the pre-existing MW-1 and the on-site water supply well (WSW) indicated 1,2-Dichloroethane present with concentrations exceeding the Class GA Groundwater Standard concentration of 0.38 parts per billion (ppb). 1,2-Dichloroethane was found exceeding the Class GA Groundwater standard with a concentration of 1.7ppb during the first sampling event. During the most recent sampling event, lead was found exceeding the Class GA Groundwater standard with a concentration of 24.7ppb. The onsite WSW has been abandoned and is no longer in use. ✓

Test results from the newly installed monitoring wells indicated the presence of MTBE at two of the wells (NW-1 and NW-2), but at concentrations below the Class GA Groundwater Standard concentration of 200ppb.

In May 2006, three (3) additional shallow monitoring wells NW-5 through NW-6 were installed on the subject property. On May 5, 2006 (NW-1, NW-5, NW-6 and NW-7) were sampled. Additionally, the on-site water supply well was sampled during this sampling event.

Groundwater analytical test results from the 2006 sampling event indicated cadmium exceeding the Class GA Groundwater Standard at NW-5, NW-6, and NW-7, located in the former Heavy Equipment Staging area. Results indicated chromium exceeding the Class GA Groundwater Standard at NW-5, NW-6, and NW-7. Results indicated Lead exceeding the Class GA Groundwater Standard at NW-1, NW-5, NW-6, NW-7 and the former on-site water supply well. Results indicated arsenic exceeding the Class GA Groundwater Standard at NW-5. Results indicated benzene exceeding the Class GA Groundwater Standard at NW-7. Results indicated 1,2-Dichloroethane exceeded the Groundwater Standard at MW-1. During the 2006 sampling event, no other compounds were detected exceeding Class GA Groundwater standard concentrations

In March of 2008, E²S conducted field activities including the installation of three (3) additional shallow monitoring wells NW-8 through NW-10 and one (1) deep Type III well (DCW-1). Three (3) of the shallow monitoring wells NW-8, NW-9, and NW-10 were installed on an adjacent property.

Groundwater sampling was conducted on NW-8, NW-9 and NW-10 on March 17, 2008. The adjacent water supply well (WSW-1) was also sampled on March 17, 2008. Groundwater sampling was conducted on DCW-1 on March 18, 2008. Groundwater sampling was conducted on MW-1, NW-6 and NW-7 on March 19, 2008

Groundwater analytical test results from the 2008 sampling event indicated chromium exceeding the Class GA Groundwater Standard at NW-7. Results indicated lead exceeding the Class GA Groundwater Standard at NW-6, NW-7, and NW-9. Results indicated mercury exceeding the Class GA Groundwater Standard at NW-6 and NW-7. Results indicated benzene exceeding the Class GA Groundwater Standard at MW-1. Results indicated bis (2-Ethylhexyl) phthalate exceeding the Class GA Groundwater Standard at NW-6 and DCW-1. Results indicated naphthalene exceeding the Class GA Groundwater Standard at MW-1. During the 2008 sampling event, no other compounds were detected exceeding Class GA Groundwater standard concentrations.

Conclusions and Recommendations

Soil investigations to date have indicated that soil contamination exists on the south portion subject property near the former heavy equipment staging area. Results exceeding the Soil-to-Groundwater standards were indicated at various depths in SS-2, TP-3, SB-2, SB-3, SB-4 and SB-6.

Groundwater investigations to date have indicated contaminants exceeding the Class GA Groundwater Standard at the former or existing wells or monitoring well locations of MW-1, NW-1, NW-5, NW-6, NW-7, NW-9, DCW-1 and at the former on-site water supply well.

Metals contaminants appear to be of higher impact from the onsite releases to the subject property than any other compounds. The indicated presence of bis(2-Ethylhexyl) phthalate exceeding the Class GA Groundwater Standard at NW-6 and DCW-1 is believed to be a component of PVC breakdown or a laboratory artifact. It is unlikely that this compound is present as a result of a release.

Contaminants indicated in MW-1 are likely attributed to an off-site release. MW-1 is located up gradient from releases on the subject property, and groundwater flow direction data indicate that groundwater flow at the subject property is southwesterly, thus contaminants associated with the on-site release are unlikely to have impacted MW-1.

Lead contaminants exceeding the groundwater standards were detected in on-site wells as well as one (1) off-site monitoring well (MW-9). Groundwater flow does indicate that Lead contaminants in groundwater from the on site release may be impacting the adjacent property.

It is E²S's recommendation that contaminated soils in the area of the former heavy equipment staging area be excavated. An area of approximately 7,050 sq/ft and approximately 8' deep containing approximately 2,089 cubic yards of soil may need to be excavated. Closure samples should be collected along the sidewalls and in the base of the excavation area to ensure that all contaminated soils are removed. Removal of the source materials will help to decrease the impact to the groundwater at the subject property. Continued groundwater monitoring should occur until and after the removal of the source contaminants to develop consistent contaminant contours and background data. The levels of Metals contaminants detected in the monitoring wells has varied over the groundwater sampling events conducted to date, and may be partially attributable to naturally occurring conditions. Once contaminated soils that are currently in place are removed, continued monitoring of contaminant levels in the groundwater will allow for conclusions, as to whether natural attenuation will be the most effective way to manage the groundwater remediation, or whether the need for an alternative groundwater remediation system will be needed at the site.

Due the variations noted in the metals contaminant levels over the groundwater monitoring previously conducted; additional groundwater monitoring is recommended and will allow for a more accurate determination of the extent of metals contamination to groundwater on-site and downgradient of the release.

Based on the most recent soil and groundwater analytical test results, it appears that contamination resulting from the release at the former AST and wash pad area behind the facility has been adequately remediated at this time. It may be possible and beneficial for the release associated with the former AST and wash pit area to be closed, and no further action for the incident on the northern parcel of the subject site be requested.

The release in former equipment maintenance, staging, storage and known fill or buried debris area on the southern parcel of the subject property is not associated with the

former AST and wash pit area, and could possibly be issued a separate incident number. Once recommended abatement measures and monitoring have occurred in the second release area, determination for future actions required for incident closure of the second release can be completed.

We appreciate serving you on this project. Please contact us if you have any further questions or concerns.

Sincerely,



Chris Mason
Environmental Scientist



T. Patrick Shillington, P.E.
President



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EW WILLIAMS CSA-Volume II

Attachment E: Laboratory Analytical Results (cont.)

EW WILLIAMS CSA-Volume III

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1.0 Site History and Source Characterization

The subject site, known as the E.W. Williams site contains 3.58 acres and comprises two (2) separate parcels identified by Wake County as PIN 0689862418 (2.15 acres) presently owned by LIEBHERR Mining & Construction Equipment, and PIN 0689861269 (1.43 acres) presently owned by E.W. Williams, and is located at the intersection of Fayetteville Road (Hwy 401) and Crestview Drive in Fuquay-Varina, NC. According to the Wake County registry, the property was obtained in 1983 by EW Williams Construction Co, Inc from Mr. Clarence W. Gelder and wife. A portion of the property was obtained by Mr. Gelder and wife in 1981 from Bessie D. Gunther. Other portions of the property were obtained by Mr. Gelder and wife in 1972 from Marshall C. Jennette and wife. The site has a Raleigh mailing address, but was recently annexed by the Town of Fuquay-Varina. A Vicinity Map is provided as Figure 1 in Attachment A. The physical site address is 8200 Fayetteville Road., Raleigh, NC 27603.

According to tax parcel information obtained from the Wake County online real estate mapping department the 2.15 acre parcel identified as PIN 0689862418 is owned by LIEBHERR Mining & Construction Equipment, and was obtained LIEBHERR from EW Williams Construction Co. on February 13, 2007. LIEBHERR currently uses the site for business office as well as the storage and maintenance of construction equipment.

LIEBHERR Mining & Construction Equipment
4100 Chestnut Ave.
Newport News, VA 23607-2420

According to tax parcel information obtained from the Wake County online real estate mapping department the 1.43 acre parcel identified as PIN 0689861269 is owned by EW Williams Construction Co., Inc and was obtained from Clarence W Gelder on May 11, 1983. The 1.43 acre site is currently vacant.

EW Williams Construction Co., Inc. (The Estate of Mr. EW Williams)
3105 Ward St.
Raleigh, NC 27603-4443
(919) 828-0684

Site Use History

Mr. E.W. Williams, former property owner, provided a synopsis of the subject property use prior to LIEBHERR leasing and eventually obtaining the property in 2007. He indicated the subject property was reportedly farmland prior to 1979. Mr. Williams purchased the subject property in 1982 and has maintained a construction company on the site until leasing the subject property to LIEBHERR. The subject property building was constructed in 1979 with an interior two-story office area constructed in 1993. Construction debris was deposited and buried on the south side of the building by E.W. Williams and, prior to EW Williams occupying the site, by NCDOT. The debris consisted of metal, such as railroad track, as well as railroad ties, concrete and asphalt, according to Mr. Williams.

The subject property has a single-story building that is about 16,00 square feet with about 1/3 of the building used for office and sales and the remaining 2/3 of the building was used for equipment maintenance. According to Mr. Williams west of the building was a concrete slab for equipment washing. A drain and drain pipe also existed and allowed the wash water to discharge along the west portion of the property. Also present west of the building were three (3) 250 gallon Above Ground Tanks (AST's) with a concrete slab and perimeter back wall. The tanks contained motor oil, hydraulic fluid, and waste oil. Several 55- gallon drums also contained equipment fluids according to Mr. Williams.

The subject facility had an on-site water supply well that provided water supply for the site. A domestic on-site septic tank and lateral field existed and remain in place on the subject property. An EW Williams Facility Layout is provided as Figure 2 in Attachment A.

Current Site Conditions

LIEBHERR currently uses the 2.15 acre portion of the site for business offices as well as the storage and maintenance of construction equipment. The 1.43 acre portion of the site is currently vacant. The subject property is now supplied public water by the Town of Fuquay-Varina. The subject former on-site water supply was abandoned in March 2008 by Parratt-Wolf, Inc. as part of recent site field activities. The domestic on-site septic tank and lateral field continue to exist on the property. Plans are being examined for construction of an expansion to the existing structure, planned expansion will likely allow for public sewer provided by Town of Fuquay-Varina to be installed at the site. At which time the septic tank and lateral field will be abandoned. A Current Facility Layout Map is provided as Figure 3 in Attachment A.

Historical Environmental Assessments

An existing monitoring well was previously installed at the northeast corner of the subject property. The well was installed by Catlin & Associates in the early 1990's for CP & L and is identified as MW-1. There may have been up to five wells installed by Catlin & Associates. MW-1 was located and used in this CSA; other wells installed by Catlin & Associates could not be located and therefore were not sampled as part of this CSA. No additional information was obtained from Caitlin & Associates regarding the previously installed wells.

E²S conducted field activities for a *Soil Abatement and Groundwater Evaluation Report* on July 7, 2003. Initial sampling activities included sampling at the discharge point for the equipment washing activities and sampling of the groundwater at the existing monitoring well MW-1 and the on-site water supply well. Four (4) additional monitoring wells NW-1 through NW-4 were installed on November 20, 2003 with the groundwater sampled on November 21, 2003. On February 5, 2004, soil sampling was conducted along the building in front of the bay doors and in the area of the on-site domestic waste lateral field. Also, sampling was conducted along the building where the wash area and AST's had been located (At this time the AST's and wash pad had been removed). The sampling along the building was conducted to evaluate feasibility of excavations of the

contaminated soils without undermining the existing building. Further west of the building and within the area of the washpit and AST's, strong odors and soil staining were noted and no analytical testing was conducted.

Based on results from the initial soil and groundwater assessment work, soil excavation activities were conducted in the area west of the existing facility on April 26, 2005. Approximately 264.19 cubic yards of soil was removed from the AST and equipment wash area and transported to Soil Solutions. Attachment B provides the soil disposal certificates for the excavated soils.

Once excavation was complete, two (2) composite samples were collected from the excavated soils and analyzed for TPH content as gasoline, diesel and oil and grease as well as for TCLP RCRA Metals Content. In addition, seven (7) sidewall samples and three (3) base samples were collected from the excavation area and analyzed using EPA Methods 8260 and 8270. Four (4) samples were also analyzed for Total RCRA Metals content from the excavation closure samples (S-20, S-24, S-25, & S-28).

Soil analytical test results from composite sampling indicated the presence of TPH content as gasoline ranging from below detectable levels to 2.41 parts per million (ppm) content as diesel ranging from 57 to 165 ppm and content as oil and grease ranging from 2,190 to 2,480 ppm. No TCLP RCRA Metals content was detected from the composite samples. Soil closure sampling from the excavation area indicated the presence of acetone, carbon disulfide, and chlorobenzene remaining in the excavation area, but at levels below the Soil-to-Groundwater Standards. Metals detected included barium, chromium, and lead with concentrations below the Soil-to-Groundwater Standard.

Abatement activities to date have included the excavation of approximately 264.19 cubic yards of soil from the AST and equipment wash area, which were transported to Soil Works in Johnston County, NC. Closure sampling indicated that no contaminants above the MSCC's remained beneath the excavation.

E²S submitted a *Soil Abatement and Groundwater Evaluation Report* dated July 29, 2004 to the NCDENR Aquifer Protection Section. Based on results from the initial report the determination was made to conduct a CSA for the subject property. Soil and groundwater sampling activities conducted and associated data collected as part of the July 29, 2004 *Soil Abatement and Groundwater Evaluation Report* will be used in the completion of this CSA.

2.0 Receptor Information

2.1 Water Supply Wells

Water Supply Wells including approximately forty-nine (49) off-site wells were identified within a 1500 ft. radius of the release during this assessment. This information was obtained by identifying ownership of each parcel of land and then physically identifying well heads on the subject property. When no well heads could be identified,

the property occupant was interviewed. If needed, E²S will provide owner names and addresses for the various properties within 1500 ft. of the release once information on well depths, yield, etc. are determined. One (1) down gradient adjacent water supply well was sampled during the completion of this CSA. No contaminants exceeding the reporting limits were detected in the adjacent water supply well (WSW-1). A Receptor Map is provided as Figure 4 in Attachment A.

2.2 Public Water Supplies

A public water supply system for a residential development is located west and slightly more than 1500 ft. from the release. The source of water is a water supply well (Figure 4).

Public water is provided from a waterline located east and paralleling Hwy 401 (Figure 4). The subject facility is currently connected to the public water supply system provided by the Town of Fuquay-Varina.

2.3 Surface Water

Approximately four (4) ponds and two (2) intermittent streams are located within 1500 ft. of the release. The intermittent streams were determined by review of the Lake Wheeler USGS Quadrangle map and the USDA Soil Survey of Wake County. The closest receptor is the former intermittent stream which begins at the central south property line. A Receptor Map is provided as Figure 4 in Attachment A.

2.4 Wellhead Protection Areas

There are no well head protection areas within 1500 ft. of the release.

2.5 Subsurface Structures

No basements are present at the subject site or within the immediate surrounding properties. A septic tank and lateral field (Figure 3) are located up slope and north to northeast of the release. Town of Fuquay-Varina public Water and sewer lines parallel Hwy 401 (Figure 3).

2.6 Adjacent Property Owners and Occupants

Adjacent property ownership information is provided in Table 1. An Adjacent Property Owner Map is provided as Figure 5 in Attachment A.

2.7 Land Use

The subject property and majority of surrounding properties are commercial and industrial. North of the subject property is a gasoline service station and machine shop.

West is a residential house and asphalt plant. To the east and south is sparse residential. A Recent Wake County Aerial Photograph is provided as Figure 6 in Attachment A.

3.0 Regional Geology and Hydrogeology

Per the Geologic Map of North Carolina the site lies at the interface of the Raleigh belt and the Coastal Plain. Based on the borings conducted at the site, the site lies primarily in the Coastal Plain of the Middendorf Formation. Bedrock materials consist of sandstone and mudstone.

In accordance with the USDA Soil Survey of Wake County (1970), the developed soils are in the Wagram series (WaC). The 1970 Soil Survey also indicates an intermittent stream beginning at the north east corner of the property and diagonally passing through the site in a southwesterly direction. This intermittent stream has been filled on-site and off-site. Off-site and South of the subject property, a channel provides drainage. The intermittent stream is not shown on the current Wake County Soils Map (Source Wake County GIS). The 1970 USDA Wake Co Soil Survey Map is provided as Figure 7 in Attachment A. The Current Wake Co Soil Survey Map is provided as Figure 8 in Attachment A.

4.0 Site Geology

Subsurface soil on the northern portion of the site primarily consisted of a silty and sandy CLAY (CL) altering to a silty coarse SAND (SC). Groundwater depths in this area were near 7ft to 15ft below groundsurface. Groundwater depths in the low area near the former intermittent stream was near the groundsurface. Fill materials or buried debris, including metal, such as railroad track, as well as railroad ties, concrete and asphalt are known to exist on the southern portion of the subject property. The fill depths vary, but tend to increase in depth towards to southwest along the southern portion of the property. This fill material generally consisted of construction debris intermixed with a silty sandy clay. The construction debris included metals, such as railroad track, as well as concrete and asphalt. Per discussion with Mr. E.W. Williams, this fill material was placed by E.W. Williams and, prior to the company occupying the site, by the NCDOT. Fill was encountered to approximately 10ft below groundsurface on the easternmost portions of the south side of the property and, moving from east to west, gradually increased to depths of 22 to 25ft below groundsurface. No drums were encountered during the subsurface investigations on the subject property. A Geologic cross-section Index Map for the subsurface investigation on the subject property is provided as Figure 9 of Attachment A. Geologic cross-sections for the subsurface investigation on the subject property are provided as Figures 10- 14 of Attachment A.

5.0 Analytical Sampling and Results

5.1 Soil Sampling and Results

Initial investigative sampling activities included collection of a sample at the discharge point for the equipment washing pad and was conducted on July 7, 2003. SS-1 was collected and analysis included EPA Methods 8260 and 8270.

SS-2 was collected on July 24, 2003 from the approximate area of fill material suspected to be contaminated on the eastern portion of the property. This sample was analyzed for Total Petroleum Hydrocarbon content as gasoline (by method 5030), as diesel (by method 3550) and as oil and grease (by method 9071).

Sample results from SS-1, indicated no compounds detected by EPA Methods 8260 or 8270. At SS-2, TPH content as oil and grease was detected at a concentration of 397 parts per million (ppm). Soil Sample information and results for the July, 2003 sampling are provided in Table 4 and Figure 15 of Attachment A. Attachment E contains the Laboratory Analytical Results.

On February 5, 2004, an additional sampling event was conducted in the area of the warehouse facility, at the location of a possible domestic waste leach field and at a surface staining area located along Crestview Drive (SS-1 through SS-13). Sample analysis during this event included EPA Methods 8260 and 8270.

Sample results from samples collected closest to the warehouse facility indicated the presence of several compounds including acetone, benzene, carbon disulfide, chlorobenzene, toluene and xylenes. Soil Sample information and results for the February, 2004 sampling are provided in Table 4 and Figure 15 of Attachment A. Attachment E contains the Laboratory Analytical Results.

On April 26, 2005, approximately 264.19 tons of contaminated soils were removed from the former AST and former wash pad area the site and disposed at Soil Works, Inc. in Johnston County, NC. Once excavation was complete, two (2) composite samples were collected from the excavated soils and analyzed for TPH content as gasoline, diesel and oil and grease as well as for TCLP RCRA Metals Content. In addition, seven (7) sidewall samples and three (3) base samples were collected from the excavation area and analyzed using EPA Methods 8260 and 8270. Four (4) samples were also analyzed for Total RCRA Metals content from the excavation closure samples (S-20, S-24, S-25, & S-28).

Soil analytical test results from composite sampling indicated the presence of TPH content as gasoline ranging from below detectable levels to 2.41 parts per million (ppm) content as diesel ranging from 57 to 165 ppm and content as oil and grease ranging from 2,190 to 2,480 ppm. No TCLP RCRA Metals content was detected from the composite samples.

Soil closure sampling from the excavation area indicated the presence of acetone, carbon disulfide, and chlorobenzene remaining in the excavation area, but at levels below the Soil-to-Groundwater Standards. Metals detected included barium, chromium, and lead with concentrations below the Soil-to-Groundwater Standard. Soil Sample information and results for the April, 2004 excavation closure sampling are provided in Table 5 and Figure 15 of Attachment A. Attachment E contains the Laboratory Analytical Results.

E²S conducted additional soil sampling activities in February 2006. Nine (9) handauger borings were also conducted in the northeast corner of the property in the area of MW-1 to determine if another release may have occurred in this area, and also to determine if any barrels or other materials had been buried in this area. Four (4) samples were submitted for analytical testing in this area (CT-1, CT-3, CT-7 and CT-9). Soils were sampled to determine if an additional possible solvent or petroleum release had occurred in this area. No samples in this area revealed compounds exceeding the Soil-to-Groundwater Standard concentrations.

Soil sampling was also conducted in February 2006 on the southern portion of the subject property to identify possible impacts from buried fill and debris in this area. Soil analytical test results indicated compounds exceeding Soil-to-Groundwater standard concentrations at Test Pit 2 (TP-2F) and Test Pit 3 (TP-3F), located on the southern portion of the property in the Heavy Equipment Staging Area. Benzo(a) anthracene and Benzo(a) pyrene exceeded the standards at both locations, and Benzo (b) fluoranthene, Benzo (k) fluoranthene, Dibenz (a,h) anthracene, Indeno (1,2,3-cd) pyrene and Naphthalene exceeded the standards at only TP-3F. No other samples revealed compounds exceeding the Soil-to-Groundwater Standard concentrations during the February 2006 soil sampling activities.

In response to concerns identified in a letter from NCDENR to EW Williams, two (2) additional soil samples were collected in May 2006, one sample was collected from the waste oil excavation area (WDB-1) and sampled for Chromium and Lead, one from the wash pad discharge area (WDA) and sampled for RCRA Metals. No compounds exceeding the Soil-to-Groundwater Standard concentrations were identified during the May 2006 soil sampling activities.

E²S conducted further soil sampling activities in 2008 to define impacts to soils in the former Heavy Equipment Staging Area. Soil analytical test results indicated compounds exceeding Soil-to-Groundwater standard concentrations in SB-2A, SB-3, SB-4B, and SB-6, located on the southern portion of the property in the Heavy Equipment Staging Area. Soil analytical test results indicated compounds exceeding Soil-to-Groundwater standard concentrations at Test Pit 2 (TP-2F) and Test Pit 3 (TP-3F), located on the southern portion of the property in the Heavy Equipment Staging Area. Benzo(a) anthracene and Benzo(a) pyrene exceeded the standards at both locations, and Benzo (b) fluoranthene, Benzo (k) fluoranthene, Dibenz (a,h) anthracene, Indeno (1,2,3-cd) pyrene and Naphthalene exceeded the standards at only TP-3F. No other samples revealed compounds exceeding the Soil-to-Groundwater Standard concentrations during the 2006 soil sampling activities. Soil Sample locations and results for the 2006 soil sampling are

provided as Figure 15 of Attachment A. Soil sampling information and results for the 2006 soil sampling are provided in Tables 6 and 7 of Attachment A. Attachment E contains the Laboratory Analytical Results.

In 2008, E²S conducted field activities including the installation of three (3) additional shallow monitoring wells NW-8 through NW-10 and one (1) deep Type III well (DCW-1). Two (2) of the shallow monitoring wells NW-9 and NW-10 were installed on an adjacent property. An access agreement was obtained prior to drilling on the adjacent property and is provided in Attachment F. Soil samples were also collected during the installation of NW-8, NW-9 and NW-10 on March 14, 2008.

One (1) soil boring (SB-1) was conducted on March 14, 2008. Three (3) soil borings (SB-2 through SB-4) were conducted on March 17, 2008 and two (2) additional soil borings (SB-5 and SB-6) were conducted on March 18, 2008. The soil borings were all in the area of the buried debris on the south portion of the subject property in order define the limits of soil contamination identified in the initial soil samples conducted in 2006 and associated with the buried debris on the south portion of the subject site.

Soil analytical testing was conducted on soil samples that were collected during the installation of NW-8, NW-9 and NW-10 on March 14, 2008 and are identified as NW-8, NW-9 and NW-10. One (1) soil boring (SB-1) was conducted on March 14, 2008 and one (1) soil sample identified as SB-1 was collected. Three (3) soil borings (SB-2 through SB-4) were conducted on March 17, 2008 and soil samples identified as SB-2A, SB-2B, SB-3, SB-4A and SB-4B were collected. Two (2) additional soil borings (SB-5 and SB-6) were conducted on March 18, 2008 and soil samples SB-5A, SB-5B and SB-6 were collected. The soil borings were all in the area of the buried debris on the south portion of the subject property in order define the limits of soil contamination identified in the preliminary CSA in 2006 and associated with the buried debris on the south portion of the subject site.

Soil analytical test results indicated compounds exceeding Soil-to-Groundwater standard concentrations in SB-2A, SB-3, SB-4B, and SB-6, located on the southern portion of the property in the Heavy Equipment Staging Area. Chromium was indicated at levels above the Soil-to-Groundwater standard in SB-3, SB-4B, and SB-6. Benzo (b) fluoranthene was indicated at levels above the Soil-to-Groundwater standard in SB-2A. Benzo (a) anthracene was indicated at levels above the Soil-to-Groundwater standard in SB-2A. Benzo (a) pyrene was indicated at levels above the Soil-to-Groundwater standard in SB-2A. Dibenzo (a,h) anthracene was indicated at levels above the Soil-to-Groundwater standard in SB-2A. No other samples revealed compounds exceeding the Soil-to-Groundwater Standard concentrations during the 2008 soil sampling activities. Soil Sample locations and results for the 2008 soil sampling are provided as Figure 15 of Attachment A. Soil sampling information and results for the 2008 soil sampling are provided in Tables 8 and 9 of Attachment A. Attachment E contains the Laboratory Analytical Results.

5.2 Groundwater Sampling and Results

On July 7, 2003, E²S sampled one on-site monitoring well (MW-1) and the on-site water supply well (WSW) to determine if soil contamination detected had impacted the groundwater on the subject property. Samples were analyzed using EPA Methods 601, 602 w/IPE EDB, MTBE & Xylenes, and 625. MW-1 was installed by Caitlin & Associates in 1992; four (4) other wells were installed on the property but could not be located.

On November 20, 2003, E²S observed the installation of four (4) additional monitoring wells at the subject property. Boring logs and well construction records for these wells are provided in Attachment C. Once the wells were complete, samples were collected on November 21, 2003 and analyzed using EPA Method 8260. The onsite WSW was also sampled during these events.

Groundwater analytical test results from the pre-existing MW-1 and the on-site water supply well (WSW) indicated 1,2-Dichloroethane present with concentrations exceeding the Class GA Groundwater Standard concentration of 0.38 parts per billion (ppb). 1,2-Dichloroethane was found exceeding the Class GA Groundwater standard with a concentration of 1.7ppb during the first sampling event. During the most recent sampling event, lead was found exceeding the Class GA Groundwater standard with a concentration of 24.7ppb. The onsite WSW has been abandoned and is no longer in use.

Test results from the newly installed monitoring wells indicated the presence of MTBE at two of the wells (NW-1 and NW-2), but at concentrations below the Class GA Groundwater Standard concentration of 200ppb. Groundwater Sample information and results for the 2003 sampling events are provided in Table 10 and Figure 16 of Attachment A. Attachment E contains the Laboratory Analytical Results.

In May 2006, three (3) additional shallow monitoring wells NW-5 through NW-6 were installed on the subject property. On May 5, 2006 (NW-1, NW-5, NW-6 and NW-7) were sampled. Additionally, the on-site water supply well was sampled during this sampling event.

Groundwater analytical test results from the 2006 sampling event indicated cadmium exceeding the Class GA Groundwater Standard at NW-5, NW-6, and NW-7, located in the former Heavy Equipment Staging area. Results indicated chromium exceeding the Class GA Groundwater Standard at NW-5, NW-6, and NW-7. Results indicated Lead exceeding the Class GA Groundwater Standard at NW-1, NW-5, NW-6, NW-7 and the former on-site water supply well. Results indicated arsenic exceeding the Class GA Groundwater Standard at NW-5. Results indicated benzene exceeding the Class GA Groundwater Standard at NW-7. Results indicated 1,2-Dichloroethane exceeded the Groundwater Standard at MW-1. During the 2006 sampling event, no other compounds were detected exceeding Class GA Groundwater standard concentrations. Well locations and sample results for the 2006 groundwater sampling are provided as Figure 16 of Attachment A. Groundwater sampling information and results for the 2006 groundwater

sampling are provided in Tables 11 and 12 of Attachment A. Attachment E contains the Laboratory Analytical Results.

In March of 2008, E²S conducted field activities including the installation of three (3) additional shallow monitoring wells NW-8 through NW-10 and one (1) deep Type III well (DCW-1). Three (3) of the shallow monitoring wells NW-8, NW-9, and NW-10 were installed on an adjacent property. An access agreement was obtained prior to drilling on the adjacent property and is provided in Attachment F.

Groundwater sampling was conducted on NW-8, NW-9 and NW-10 on March 17, 2008. The adjacent water supply well (WSW-1) was also sampled on March 17, 2008. Groundwater sampling was conducted on DCW-1 on March 18, 2008. Groundwater sampling was conducted on MW-1, NW-6 and NW-7 on March 19, 2008. NW-1 was located, but was damaged and was not able to be sampled. NW-1 was abandoned by Parratt-Wolf, Inc on March 18, 2008. NW-2, NW-3, NW-4 and NW-5 were unable to be located and are believed to have been destroyed.

Groundwater analytical test results from the 2008 sampling event indicated chromium exceeding the Class GA Groundwater Standard at NW-7. Results indicated lead exceeding the Class GA Groundwater Standard at NW-6, NW-7, and NW-9. Results indicated mercury exceeding the Class GA Groundwater Standard at NW-6 and NW-7. Results indicated benzene exceeding the Class GA Groundwater Standard at MW-1. Results indicated bis (2-Ethylhexyl) phthalate exceeding the Class GA Groundwater Standard at NW-6 and DCW-1. Results indicated naphthalene exceeding the Class GA Groundwater Standard at MW-1. During the 2008 sampling event, no other compounds were detected exceeding Class GA Groundwater standard concentrations. Well locations and sample results for the 2008 groundwater sampling are provided as Figure 16 of Attachment A. Groundwater sampling information and results for the 2008 groundwater sampling are provided in Tables 13 and 14 of Attachment A. Attachment E contains the Laboratory Analytical Results.

6.0 Hydrogeologic Investigation

Two (2) groundwater elevation monitoring events were used as part of this assessment. Figure 7 of Attachment A shows the groundwater elevation contours and Table 2 summaries the well information for the May 2006 groundwater elevation data collection event. Figure 8 in Attachment A shows the groundwater elevation contours and Table 3 summaries the well information for the May 2008 groundwater elevation data collection event. Attachment C contains the monitoring well records and boring logs for both groundwater elevation data collection events. Groundwater contour maps for the May, 2006 and May, 2008 events are provided in Attachment A as Figures 17 and 18.

Groundwater depths in the fill area were near 7 ft. to 15 ft. below ground surface. Groundwater depths in the low area near the former intermittent stream were near the ground surface.

On May 12, 2008 slug tests were conducted on NW-6, NW-8 and DCW-1. The horizontal permeability was estimated as follows:

NW- 6: 0.298 ft/day

NW-8 : 0.540 ft/day

DCW-1: 0.0856 ft/day

Slug Test Evaluation Data and Calculations are provided as Attachment G.

Horizontal groundwater direction is southwest towards an intermittent stream at a hydraulic gradient approximately ranging from 0.011 ft/ft on the upland ground and 0.050 ft/ft where the ground slopes downward towards the former intermittent stream. Vertical gradient is downward at 0.062 ft/ft.

Based on a horizontal gradient of 0.011 ft/ft to 0.050 ft/ft, an average horizontal permeability of 0.419 ft/day and a shallow soil porosity of 0.3, the horizontal velocity of the groundwater will vary from 0.015 ft/day (5.6 ft/year) to 0.070 ft/day (25 ft/year).

7.0 Discussion

The receptor survey has indicated the presence of approximately 49 water supply wells within a 1500ft radius of the subject property, the closest being the down gradient off-site water supply well. Also, an intermittent unnamed stream is present to the south and west of the subject release. Utility lines such as water and sewer lines are located along Hwy 401, up-gradient and at least 30 ft east from the release. Land use is primarily commercial and industrial along Hwy 401. Residential land use is primarily east and south of the subject site.

Initial site investigations revealed a release primarily from three (3) aboveground storage tanks (AST's) and a concrete equipment wash pad that were located on the west side or directly behind the facility building. The AST's contained motor oil, hydraulic fluid, and used motor oil. The wash pad was used for cleaning equipment prior to repair. Approximately 264.19 tons of contaminated soils were removed from the former AST and former wash pad area the site and disposed at Soil Works, Inc. in Johnston County, NC on April 26, 2005.

Closure samples conducted during the soils excavation indicate the contaminants in soils in this area have been adequately remediated. An impact to the former water supply well in this area was previously noted. Based on the most recent soil and groundwater analytical test results, it appears that contamination resulting from the release at the AST and wash pad area behind the facility has been adequately remediated at this time.

Additional site investigations have revealed a second release on the site. The release was detected in the former equipment maintenance, staging and storage area south of the building. This area is also known to have various fill materials or buried debris, including metal, such as railroad track, as well as railroad ties, concrete and asphalt. No abatement measures have occurred in the second release area.

Soil and Groundwater contamination exist on the subject property. Concentrations exceeding the Class GA Groundwater Standards were noted in groundwater at the site. Concentrations exceeding the Soil-to-Groundwater Standards were noted in soils at the site. Metals contaminants appear to be of higher impact from the onsite releases to the subject property than any other compounds. The facility has been connected to the public water supply system, and is proposed to be connected to public sewer.

Soil investigations to date have indicated that soil contamination exists on the south portion subject property near the former heavy equipment staging area. Results exceeding the Soil-to-Groundwater standards were indicated at various depths in SS-2, TP-3, SB-2, SB-3, SB-4 and SB-6.

Groundwater investigations to date have indicated contaminants exceeding the Class GA Groundwater Standard at the former or existing wells or monitoring well locations of MW-1, NW-1, NW-5, NW-6, NW-7, NW-9 and the former on-site water supply well.

Due the variations noted in the metals contaminant levels over the groundwater monitoring previously conducted; additional groundwater monitoring is recommended and will allow for a more accurate determination of the extent of metals contamination to groundwater on-site and downgradient of the release.

8.0 Conclusions and Recommendations

Based on soil and groundwater analytical test results, it appears that contamination resulting from the release at the AST area behind the facility has been adequately remediated at this time. However, a release appears to have been detected on the south portion of the property in the Heavy Equipment Staging Area. Soil contamination exceeding the Soil-to-Groundwater standard for seven (7) semi-Volatile Organic Compounds (sVOC's) was detected at Test Pit TP-3. Chromium was indicated at levels above the Soil-to-Groundwater standard in SB-3, SB-4B, and SB-6. Benzo (b) fluoranthene was indicated at levels above the Soil-to-Groundwater standard in SB-2A. Benzo (a) anthracene was indicated at levels above the Soil-to-Groundwater standard in SB-2A. Benzo (a) pyrene was indicated at levels above the Soil-to-Groundwater standard in SB-2A. Dibenzo (a,h) anthracene was indicated at levels above the Soil-to-Groundwater standard in SB-2A.

Groundwater analytical test results indicated cadmium exceeding the Class GA Groundwater Standard at NW-5, NW-6, and NW-7. Results indicated chromium exceeding the Class GA Groundwater Standard at NW-5, NW-6, and NW-7. Results indicated Lead exceeding the Class GA Groundwater Standard at NW-1, NW-5, NW-6, NW-7 and the former on-site water supply well. Results indicated arsenic exceeding the Class GA Groundwater Standard at NW-5. Results indicated benzene exceeding the Class GA Groundwater Standard at NW-7. Results indicated 1,2-Dichloroethane exceeded the Groundwater Standard at MW-1. Results indicated lead exceeding the Class GA Groundwater Standard at NW-6, NW-7, and NW-9. Results indicated mercury exceeding

the Class GA Groundwater Standard at NW-6 and NW-7. Results indicated benzene exceeding the Class GA Groundwater Standard at MW-1. Results indicated bis (2-Ethylhexyl) phthalate exceeding the Class GA Groundwater Standard at NW-6 and DCW-1. Results indicated naphthalene exceeding the Class GA Groundwater Standard at MW-1.

Metals contaminants appear to be of higher impact from the onsite releases to the subject property than any other compounds. The indicated presence of bis(2-Ethylhexyl) phthalate exceeding the Class GA Groundwater Standard at NW-6 and DCW-1 is believed to be a component of PVC breakdown or a laboratory artifact. It is unlikely that this compound is present as a result of a release. Contaminants indicated in MW-1 are likely attributed to an off-site release. MW-1 is located up gradient from releases on the subject property, and groundwater flow direction data indicate that groundwater flow at the subject property is southwesterly, thus contaminants associated with the on-site release are unlikely to have impacted MW-1. Lead contaminants exceeding the groundwater standards were detected in an off-site monitoring well (MW-9). Groundwater flow does indicate that Lead contaminants in groundwater from the on site release may be impacting the adjacent property.

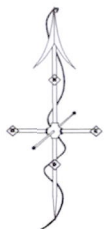
It is E²S's recommendation that contaminated soils in the area of the former heavy equipment staging area be excavated. An area of approximately 7,050 sq/ft and approximately 8' deep containing approximately 2,089 cubic yards of soil may need to be excavated. Closure samples should be collected along the sidewalls and in the base of the excavation area to ensure that all contaminated soils are removed. Removal of the source materials will help to decrease the impact to the groundwater at the subject property. Continued groundwater monitoring should occur until and after the removal of the source contaminants to develop consistent contaminant contours and background data. The levels of Metals contaminants detected in the monitoring wells has varied over the groundwater sampling events conducted to date, and may be partially attributable to naturally occurring conditions. Once contaminated soils that are currently in place are removed, continued monitoring of contaminant levels in the groundwater will allow for conclusions, as to whether natural attenuation will be the most effective way to manage the groundwater remediation, or whether the need for an alternative groundwater remediation system will be needed at the site.

Due the variations noted in the metals contaminant levels over the groundwater monitoring previously conducted; additional groundwater monitoring is recommended and will allow for a more accurate determination of the extent of metals contamination to groundwater on-site and downgradient of the release.

Based on the most recent soil and groundwater analytical test results, it appears that contamination resulting from the release at the former AST and wash pad area behind the facility has been adequately remediated at this time. It may be possible and beneficial for the release associated with the former AST and wash pit area to be closed, and no further action for the incident on the northern parcel of the subject site be requested.

The release in former equipment maintenance, staging, storage and known fill or buried debris area on the southern parcel of the subject property is not associated with the former AST and wash pit area, and could possibly be issued a separate incident number. Once recommended abatement measures and monitoring have occurred in the second release area, determination for future actions required for incident closure of the second release can be completed.

ATTACHMENT A:
Figures and Tables



Scale: 1" = 1500'



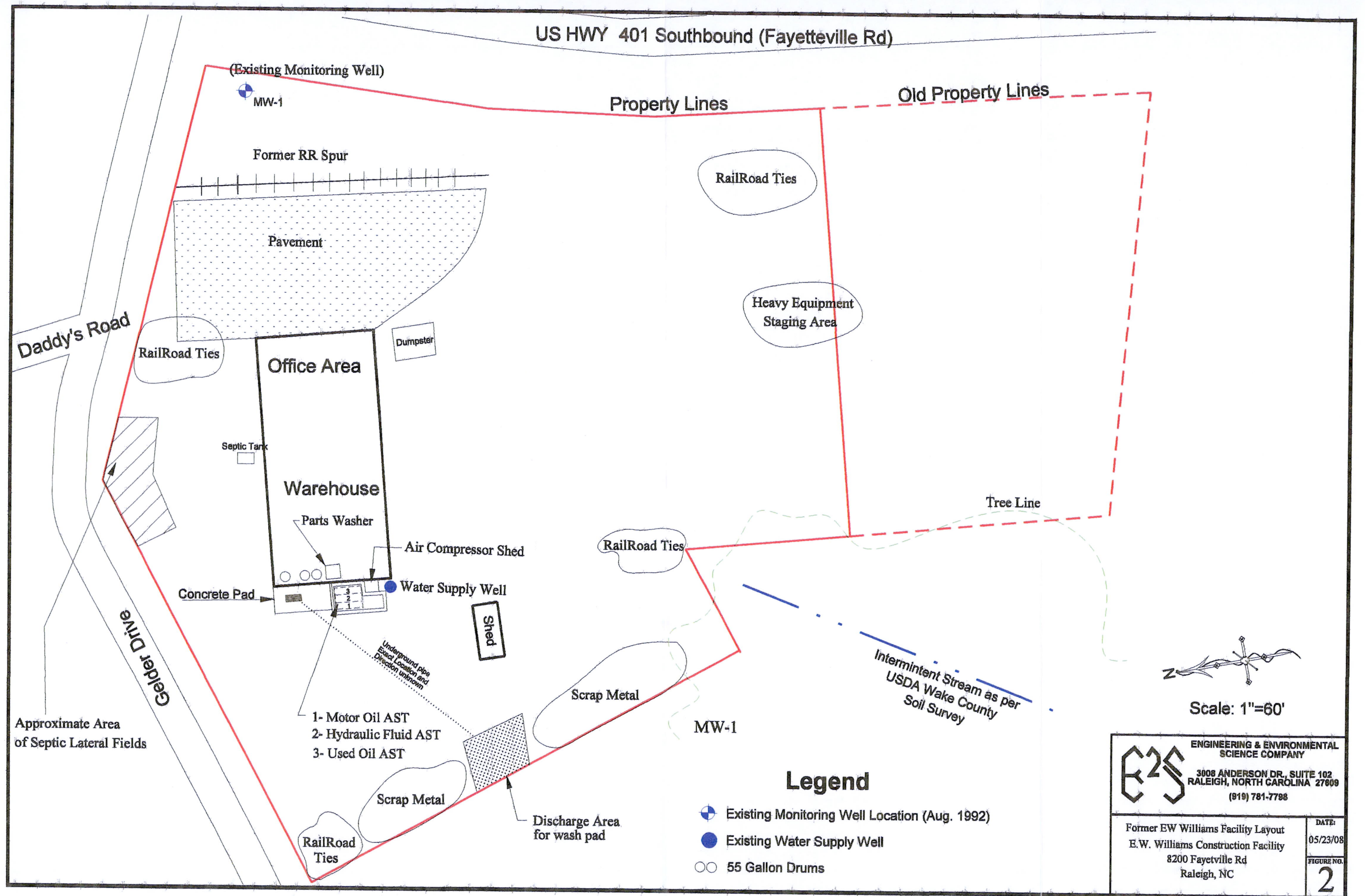
ENGINEERING & ENVIRONMENTAL
SCIENCE COMPANY

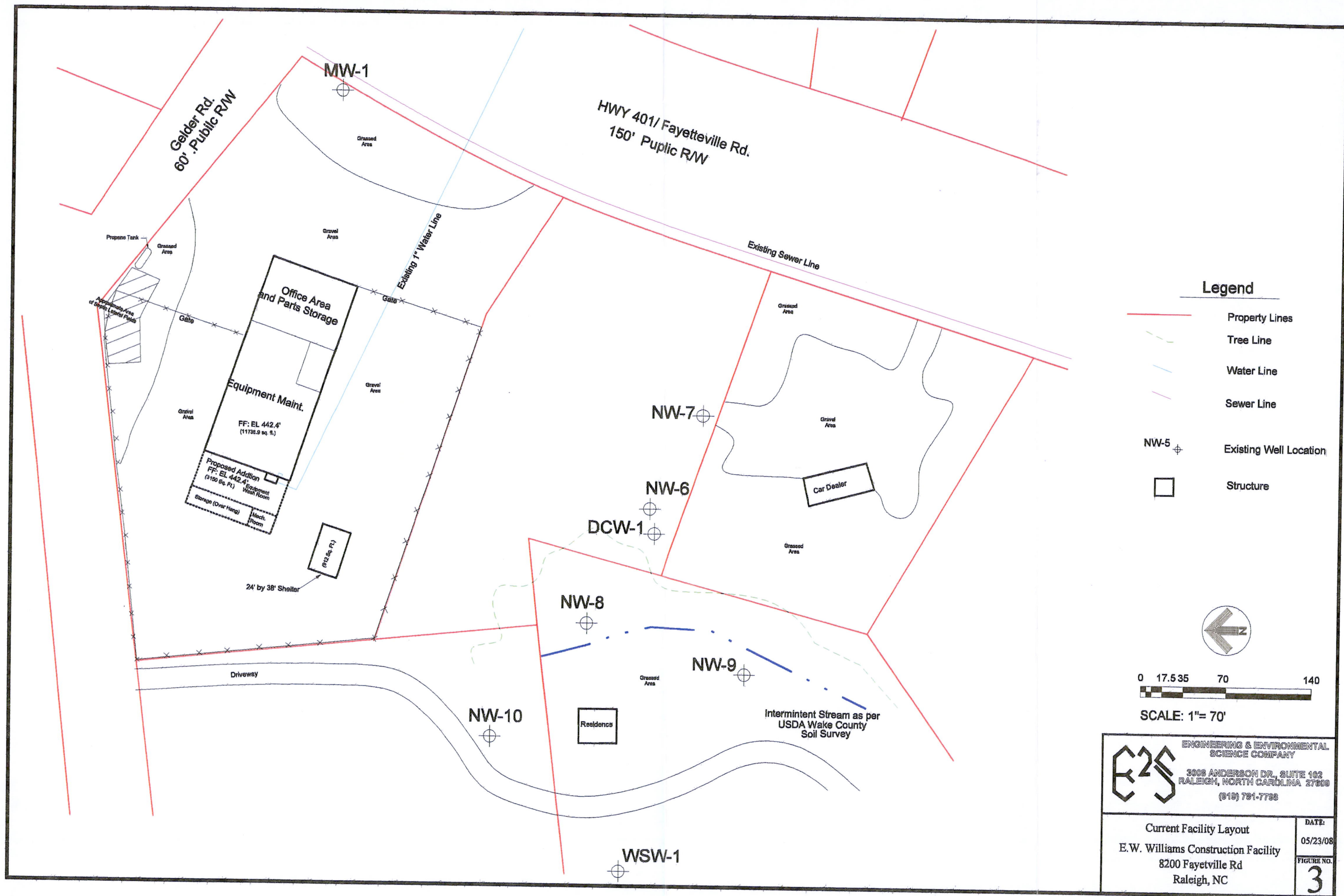
3008 ANDERSON DR., SUITE 102
RALEIGH, NORTH CAROLINA 27609
(919) 781-7798

Vicinity Map
E. W. Williams Facility
8200 Fayetteville Road
Raleigh, NC

DATE:
05/23/08

FIGURE NO.
1

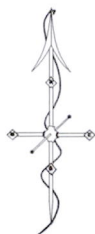




E²S ENGINEERING & ENVIRONMENTAL SCIENCE COMPANY 3008 ANDERSON DR., SUITE 102 RALEIGH, NORTH CAROLINA 27609 (919) 781-7738	
Current Facility Layout E.W. Williams Construction Facility 8200 Fayetteville Rd Raleigh, NC	DATE: 05/23/08 FIGURE NO. 3





N



Scale 1" = 600'

LEGEND

- Water Supply Wells
-  Ponds
-  Community Water Supply Well



ENGINEERING & ENVIRONMENTAL
SCIENCE COMPANY

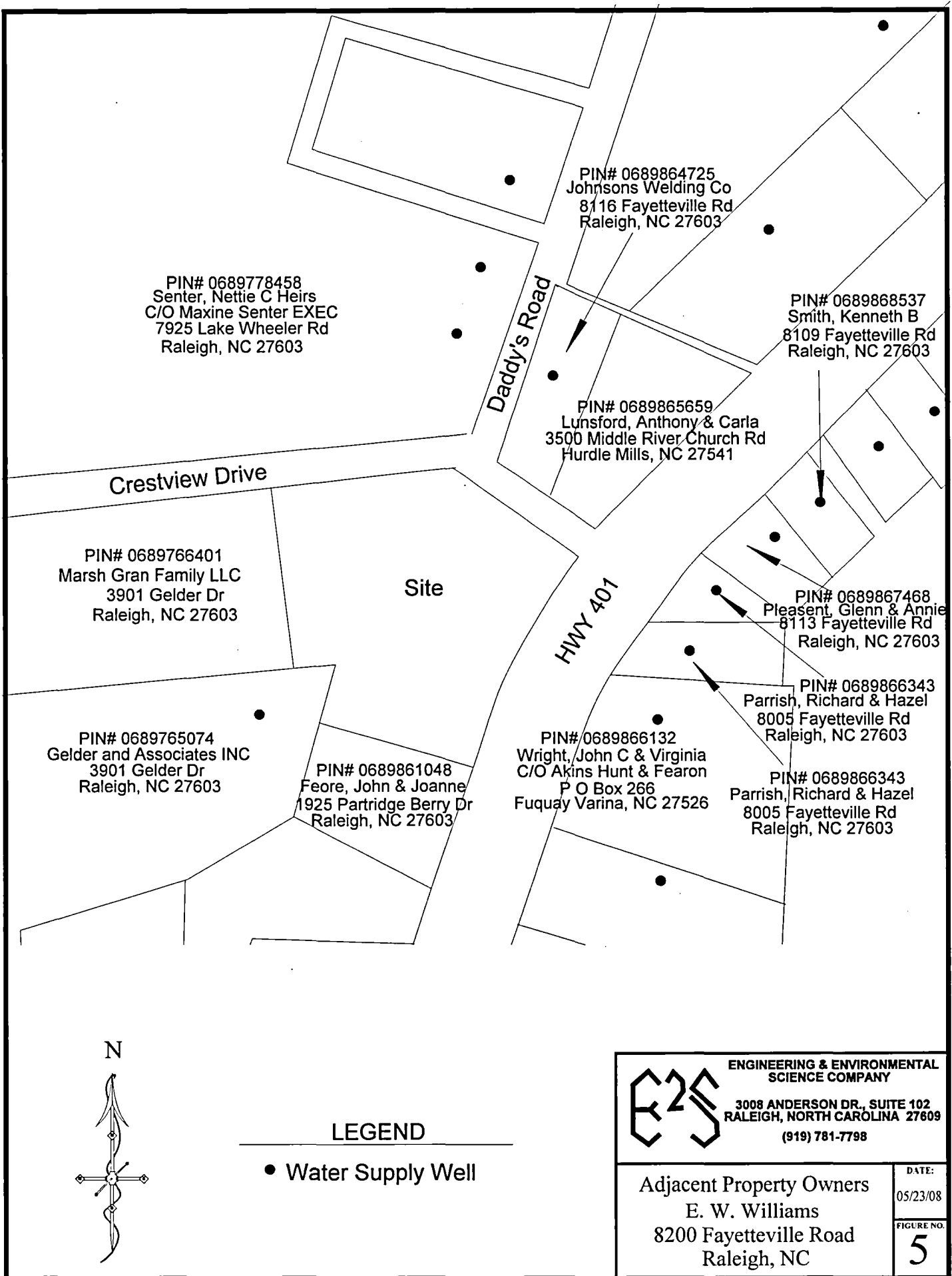
3008 ANDERSON DR., SUITE 102
RALEIGH, NORTH CAROLINA 27609
(919) 781-7798


Receptor Map
E W Williams
Hwy 401 S.
Raleigh, NC

DATE:
05/23/08

FIGURE NO.

4



 ENGINEERING & ENVIRONMENTAL SCIENCE COMPANY 3008 ANDERSON DR., SUITE 102 RALEIGH, NORTH CAROLINA 27609 (919) 781-7798	
Adjacent Property Owners E. W. Williams 8200 Fayetteville Road Raleigh, NC	DATE: 05/23/08 FIGURE NO. 5



ENGINEERING & ENVIRONMENTAL
SCIENCE COMPANY

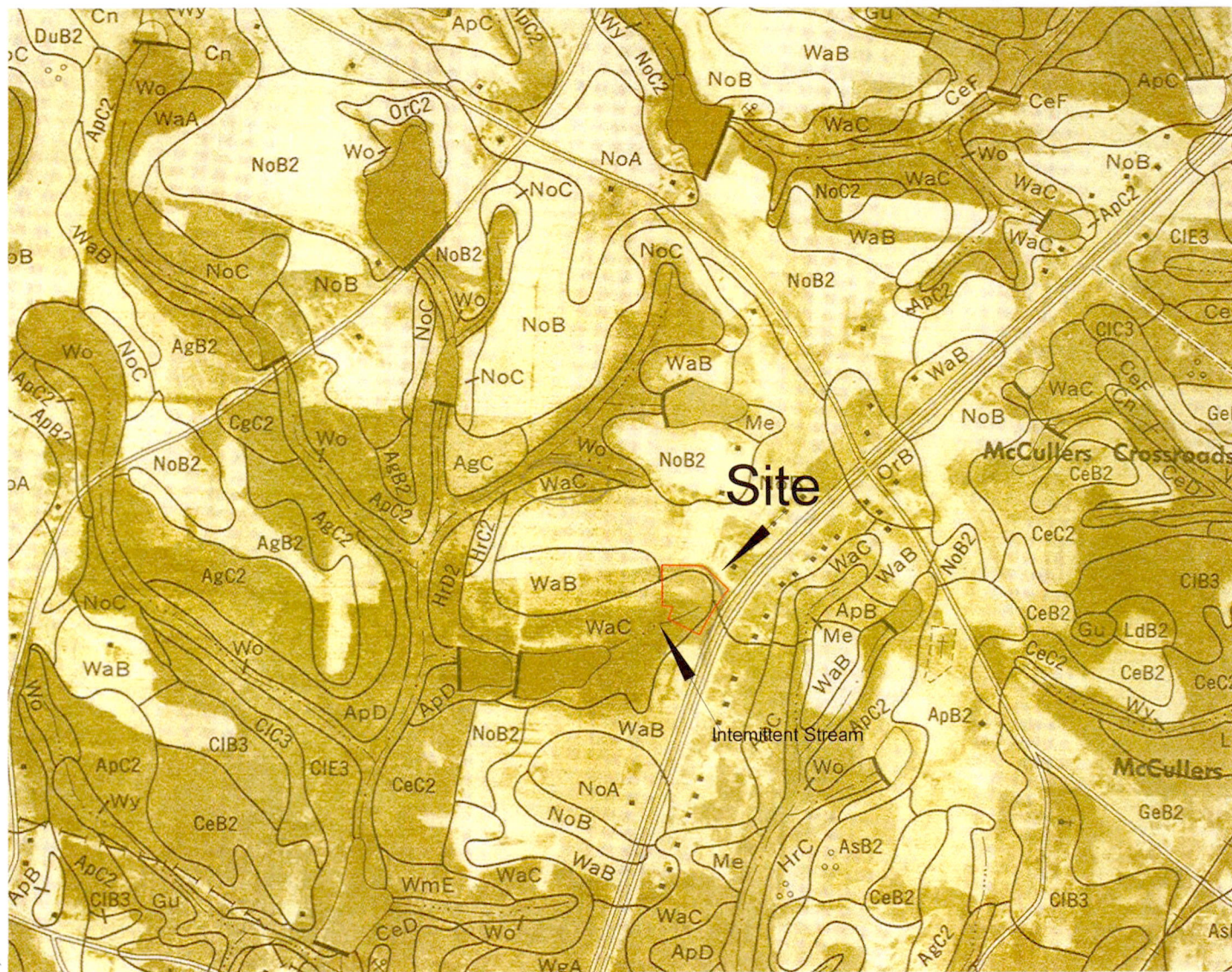
3008 ANDERSON DR., SUITE 102
RALEIGH, NORTH CAROLINA 27609
(919) 781-7798

Recent Aerial Photograph
E.W. Williams
8200 Fayetteville Road
Raleigh, N.C.

DATE:
05/23/08

FIGURE NO.

6



Soil Symbol	Soil Type	Seasonally High Water Table
Wa	Wagram	> 10'

Note: Property Boundary Approximate

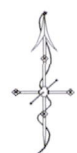
Scale: 1"= 1200'

E²S ENGINEERING & ENVIRONMENTAL
SCIENCE COMPANY
3008 ANDERSON DR., SUITE 102
RALEIGH, NORTH CAROLINA 27609
(919) 781-7798

USDA Soil Survey (1970)
E.W. Williams Construction Facility
8200 Fayetteville Road
Raleigh, NC

DATE:
5/30/08

FIGURE NO.
7



Scale: 1"= 300'

Source Wake County GIS

Soil Symbol	Soil Type	Seasonally High Water Table
Wa	Wagram	> 10'



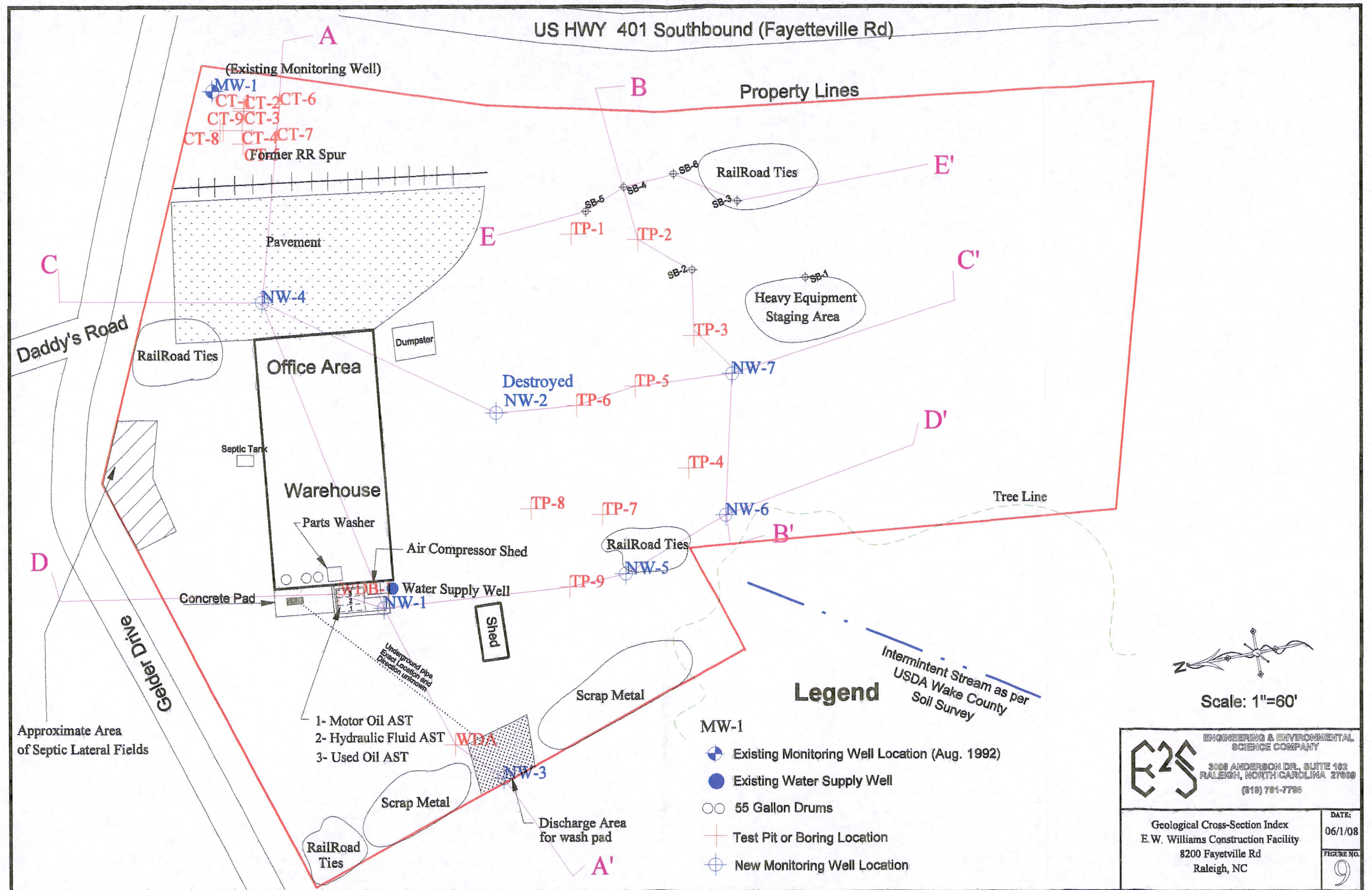
ENGINEERING & ENVIRONMENTAL
SCIENCE COMPANY
3008 ANDERSON DR., SUITE 102
RALEIGH, NORTH CAROLINA 27609
(919) 781-7798

WAKE Co. Soil Survey (Current)
E.W. Williams Construction Facility
8200 Fayetteville Road
Raleigh, NC

DATE:
5/30/08

FIGURE NO.

8

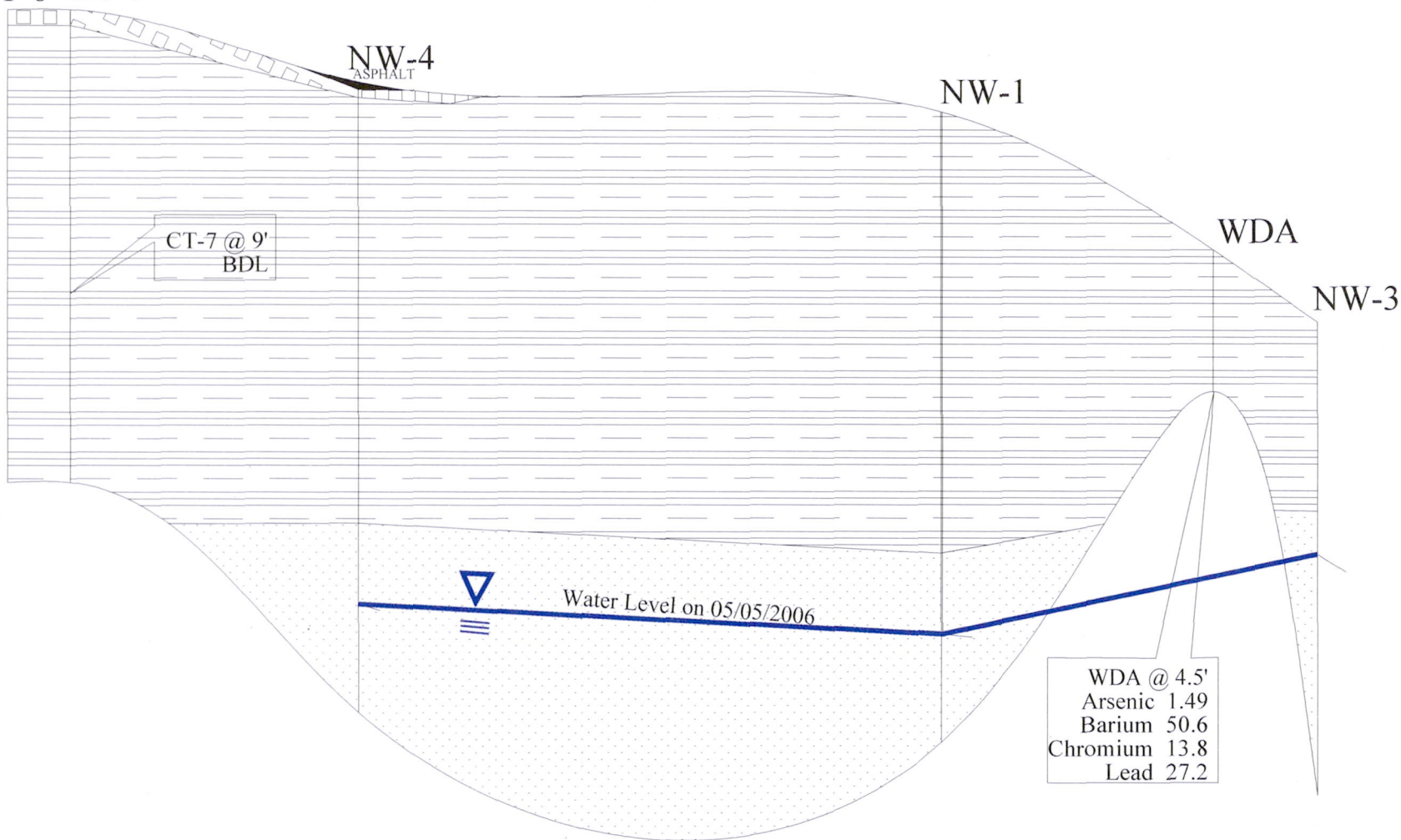


Liebherr
owns
parcel w/
Bldg.





Bought -
2/13/2007


105' **A**
CT-6 CT-7

A'

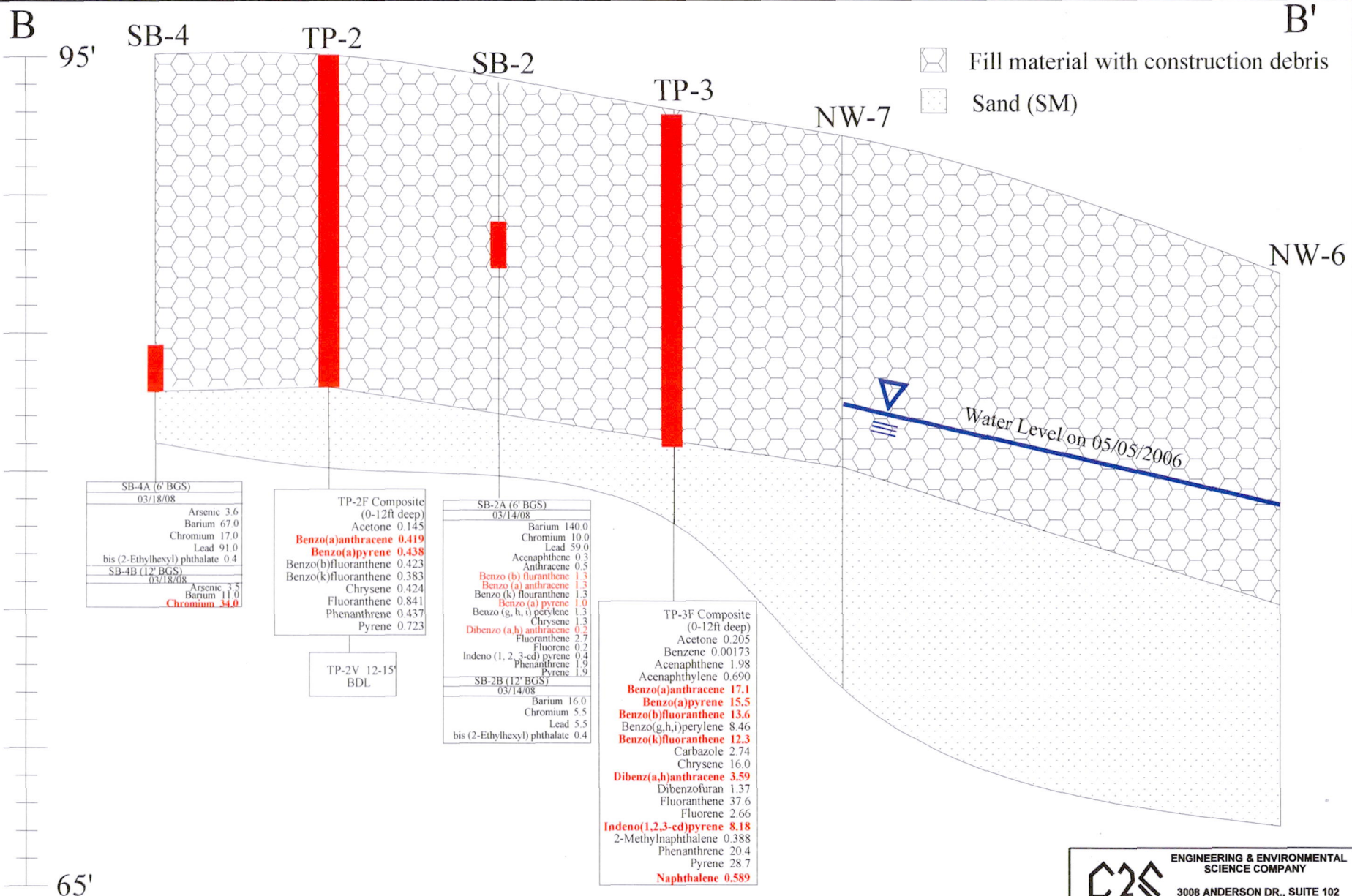


Horizontal Scale 1" = 60'
Vertical Scale 1' = 5'

- | | | | |
|---|-----------|---|-----------|
|  | ABC Stone |  | Clay (CL) |
|  | Asphalt |  | Sand (SM) |

	ENGINEERING & ENVIRONMENTAL SCIENCE COMPANY	
	3008 ANDERSON DR., SUITE 102 RALEIGH, NORTH CAROLINA 27609 (919) 781-7798	
Geological Cross-Section A-A' E.W. Williams Construction Facility 8200 Fayetteville Road Raleigh, NC		<small>DATE:</small> 06/1/08 <small>FIGURE NO.</small> 10

E2S



Horizontal Scale 1" = 30'
Vertical Scale 1' = 5'

Red values exceed Soil-to-Groundwater Standard Concentration
Red bar Location of Soil-to-Groundwater Standard Concentration Exceedences

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3008 ANDERSON DR., SUITE 102
RALEIGH, NORTH CAROLINA 27609
(919) 781-7798

Geological Cross-Section B-B'
E.W. Williams Construction Facility
8200 Fayetteville Road
Raleigh, NC

DATE:
5/30/08

FIGURE NO.
11

100' C

C'

NW-4

TP-6 Composite
(0-18')
Acetone 0.226
MTBE 0.00262

TP-5F Composite
(0-18')
Acetone 0.175

NW-2

TP-6

TP-5

NW-7



Water Level on 05/05/2006

70'



Asphalt



ABC Stone



Clay (CL)



Fill material with
construction debris



Sand (SM)

Horizontal Scale 1" = 50'
Vertical Scale 1' = 5'



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(919) 781-7798

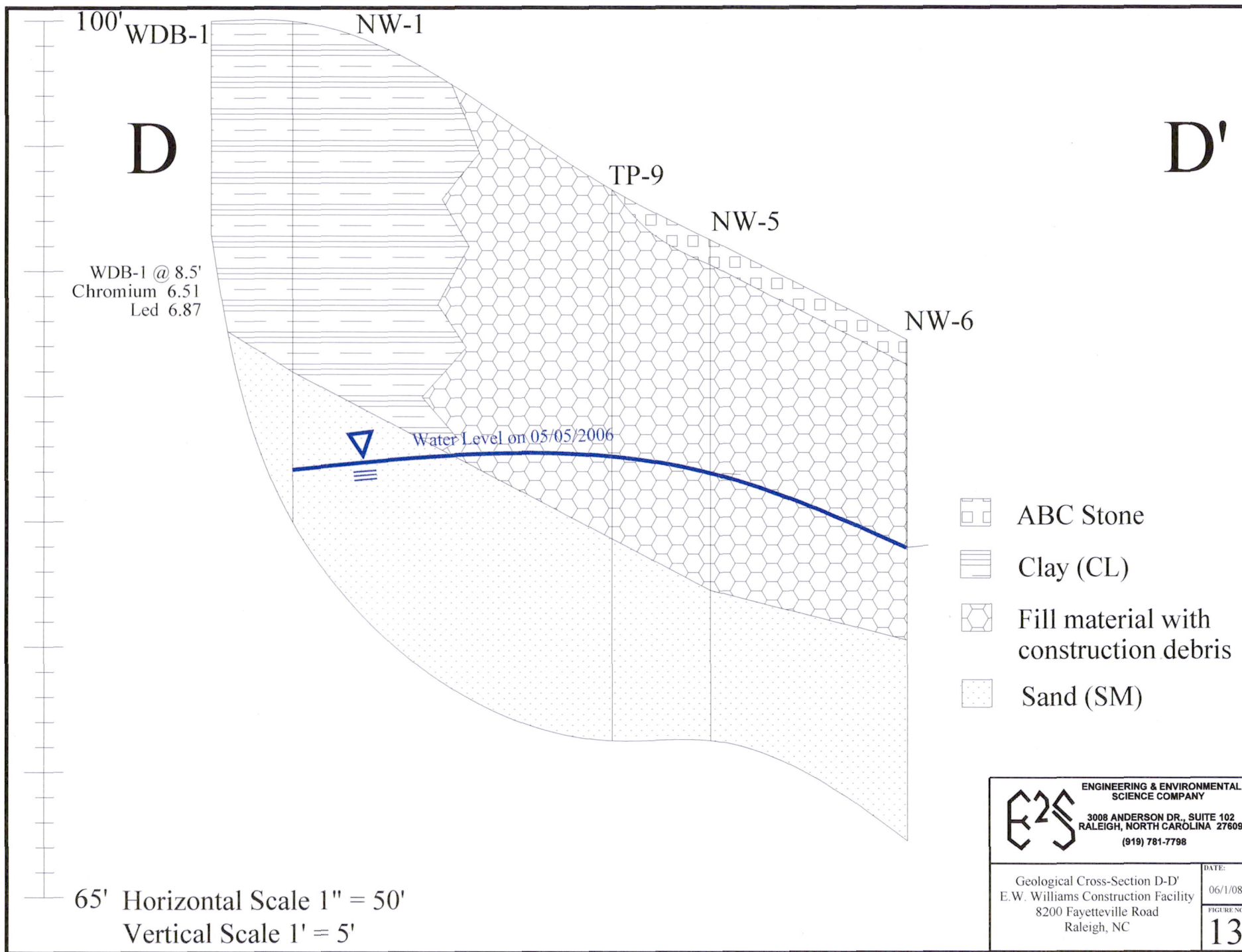
Geological Cross-Section C-C'
E.W. Williams Construction Facility
8200 Fayetteville Road
Raleigh, NC

DATE:
06/1/08

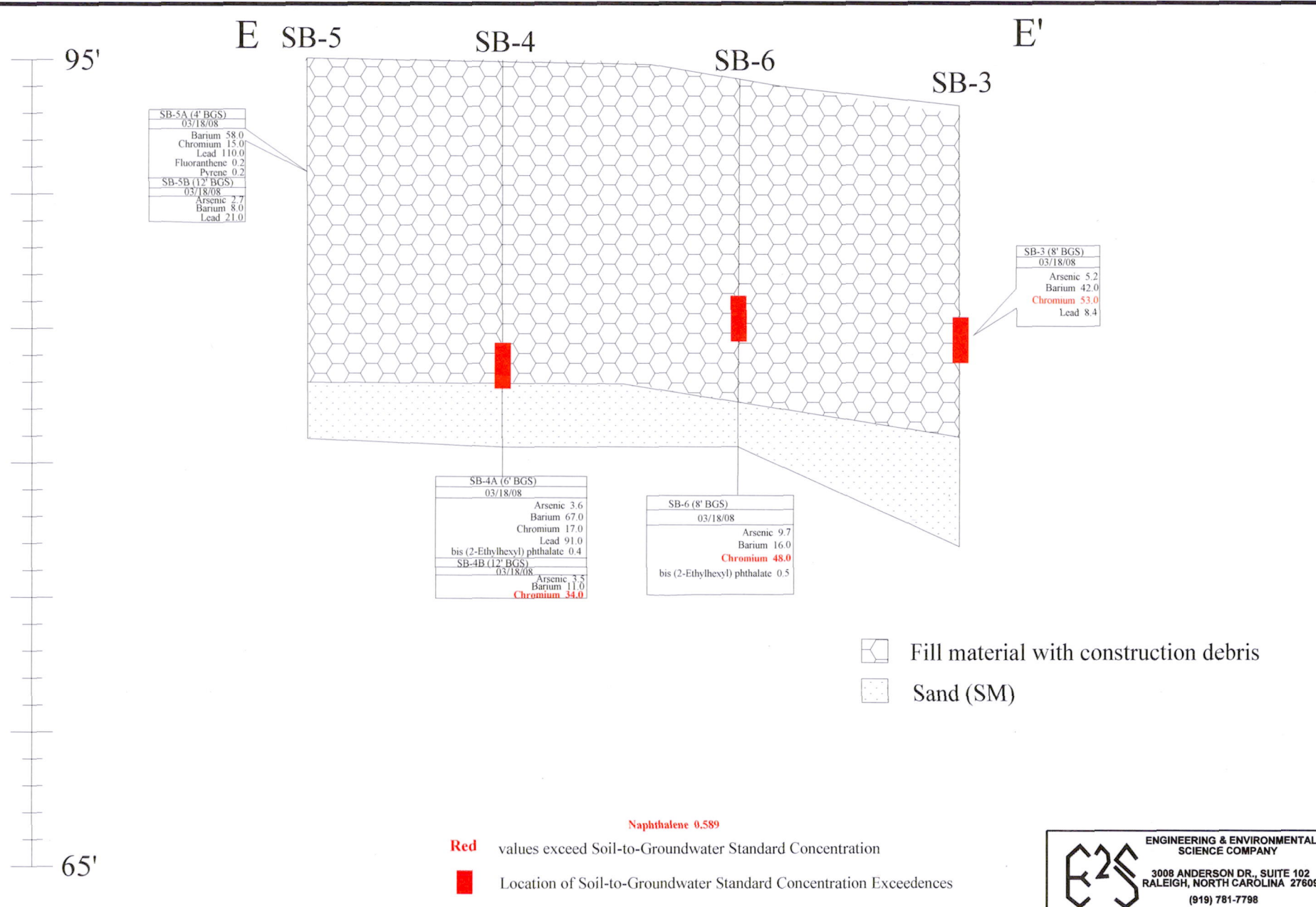
FIGURE NO.
12

E2S

E2S



E2S



E2S

ENGINEERING & ENVIRONMENTAL
SCIENCE COMPANY

3008 ANDERSON DR., SUITE 102
RALEIGH, NORTH CAROLINA 27609
(919) 781-7798

DATE:
5/30/08

FIGURE NO.
14

Geological Cross-Section E-E'
E.W. Williams Construction Facility
8200 Fayetteville Road
Raleigh, NC

PIN# 0689865659
Lunsford, Anthony & Carla
3500 Middle River Church Rd
Hurdle Mills, NC 27541

PIN# 0689864725
Johnsons Welding Co
8116 Fayetteville Rd
Raleigh, NC 27603

Gelder Rd.
60' Public R/W

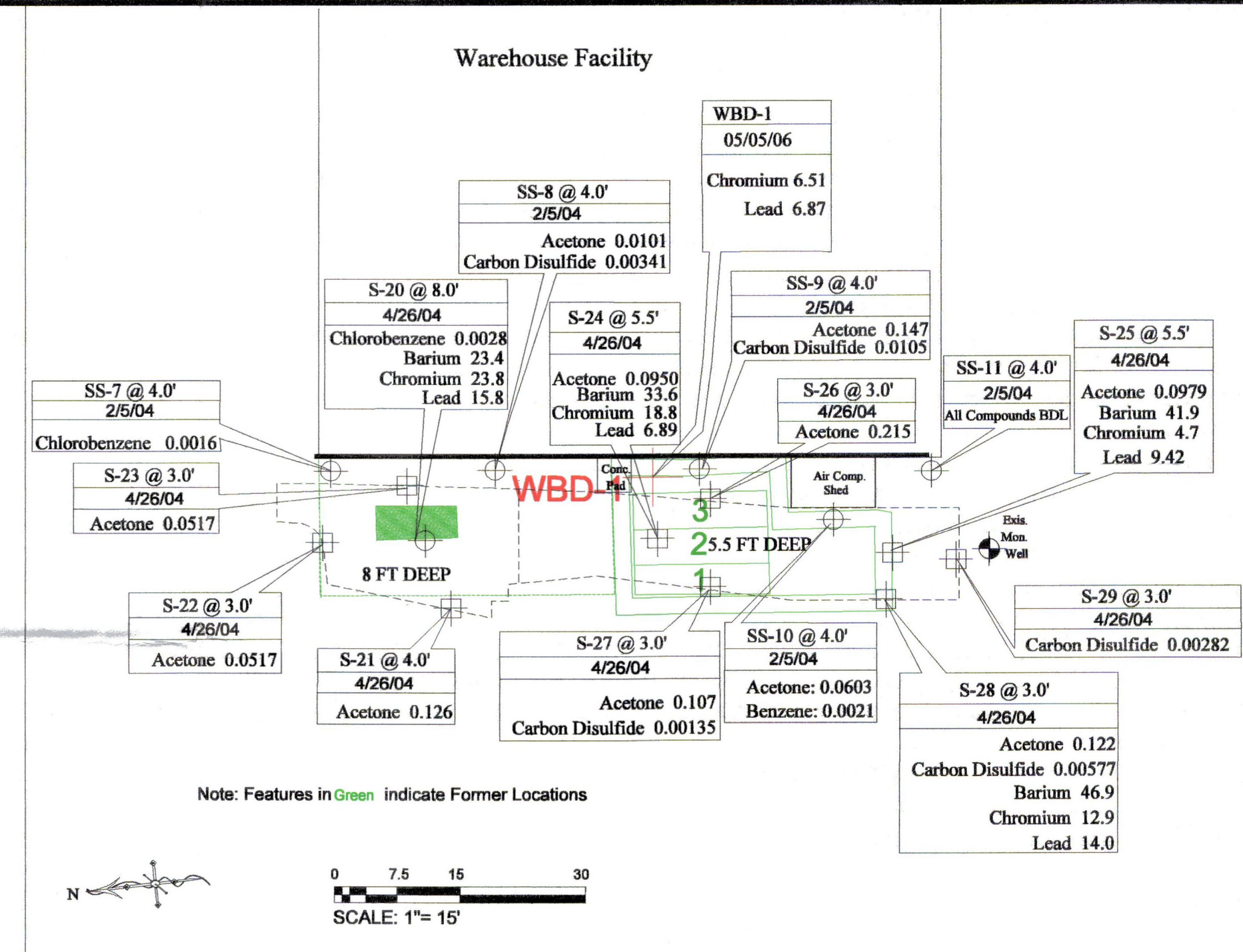
HWY 401/ Fayetteville Rd.
150' Public R/W

Existing Sewer Line

Existing 1" Water Line

Lead
20x 15mg/L = 30mg/kg
in soil

high levels of lead - remains
and does not
not clean up to 20mg/kg
or 30mg/kg



Soil Sampling Blow Up Area (See Match Line)

Legend

Property Lines

Tree Line

Water Line

Sewer Line

Handauger Location

Well Location

Test Pit or Boring Location

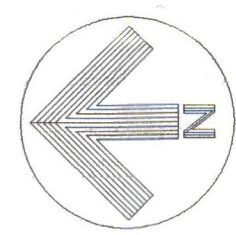
Soil Boring Location

Structure

Extent of Soil Contaminants Exceeding The MSCCs.

Note: All values are shown as Parts Per Million (PPM).

Note: Red Values indicate an Exceedence of the Maximum Soil Contaminant Concentration



SCALE: 1"=30'

PIN# 0689766401
Marsh Gran Family LLC
3901 Gelder Dr
Raleigh, NC 27603

PIN# 0689765074
Gelder and Associates INC
3901 Gelder Dr
Raleigh, NC 27603

	ENGINEERING & ENVIRONMENTAL SCIENCE COMPANY 3008 Anderson Drive Raleigh, NC 27609 (919) 781-7798		DATE: 6-2-08
	Soils Results		DRAWN: CPM
	E.W. Williams Construction Facility 8200 Fayetteville Rd Raleigh, NC		REVISED: TPS
			SCALE: 1"=30'
		Figure:	15

PIN# 0689865659
Lunsford, Anthony & Carla
3500 Middle River Church Rd
Hurdle Mills, NC 27541

PIN# 0689864725
Johnsons Welding Co
8116 Fayetteville Rd
Raleigh, NC 27603

Gelder Rd.
60' Public R/W

HWY 401/ Fayetteville Rd.
150' Public R/W

MW-1
07/07/03
1,2-Dichloroethane 1.0
03/19/08
Barium 48.0
Benzene 201.0
Ethylbenzene 34.0
Toluene 12.1
Napthalene 200

Note: Remains In Place

NW-4
11/21/03
All Compounds BDL

Note: Remains In Place Damaged and Unable to Sample

NW-4
11/21/03
All Compounds BDL

Gravel Area

Propane Tank

Grassed Area

Approximate Area
of Septic Lateral Fields

Gate

Gravel Area

Office Area
and Parts Storage

Equipment Maint.
FF: EL 442.4'
(11736.9 sq. ft.)

WSW
07/07/03
1,2-Dichloroethane 1.7
05/05/06
Lead 24.7

Note: Abandoned March 2008

WSW

NW-1
11/21/03
MTBE 2.0

5/05/06
Chromium 5.80
Lead 59.7

Note: Abandoned March 2008

NW-3
11/21/03
All Compounds BDL

Note: Unable To Be Located

NW-3

Driveway

PIN# 0689766401
Marsh Gran Family LLC
3901 Gelder Dr
Raleigh, NC 27603

PIN# 0689778458
Senter, Nettie C Heirs
C/O Maxine Senter EXEC
7925 Lake Wheeler Rd
Raleigh, NC 27603

NW-2

NW-2
11/21/03
MTBE 1.5

Note: Unable To Be Located

NW-5

NW-5
05/05/06
Arsenic 73.7
Barium 948
Cadmium 14.0
Chromium 308
Lead 828
MTBE 0.690

Note: Unable To Be Located

NW-10

NW-10
3/17/08
All Compounds BDL

Note: Remains In Place

NW-6
05/05/06
Barium 1400
Cadmium 11.0
Chromium 757
Lead 921
MTBE 2.58
03/19/08
Arsenic 25.0
Barium 260.0
Chromium 35.0
Mercury 1.4
Lead 69.0
bis (2-Ethylhexyl) phthalate 100.0

Note: Remains In Place

NW-6

DCW-1

DCW-1
3/19/08
bis (2-Ethylhexyl) phthalate 100.0

Grassed Area

Residence

WSW-1
3/17/08
All Compounds BDL

Note: Remains In Place

NW-7
05/05/06
Arsenic 27.5
Barium 374
Cadmium 7.0
Chromium 337
Lead 166
Mercury 0.209
Benzene 8.48
MTBE 26.2
03/19/08
Barium 210.0
Chromium 180.0
Lead 64.0
Mercury 1.4

Note: Remains In Place

NW-7

PIN# 0689861048
Feore, John & Joanne
1925 Partridge Berry Dr
Raleigh, NC 27603

Car Dealer

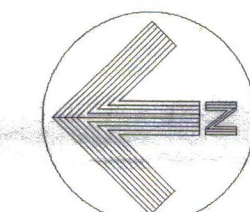
Intermittent Stream as per
USDA Wake County (1970)
Soil Survey

Note: All values are shown as Parts Per Billion (PPB).


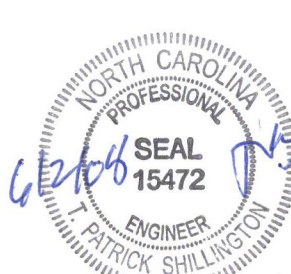
Note: Red Values indicate an Exceedence of the Groundwater Standard

Legend

- Property Lines
- Tree Line
- Water Line
- Sewer Line
- Existing or Former Well Location
- Structure

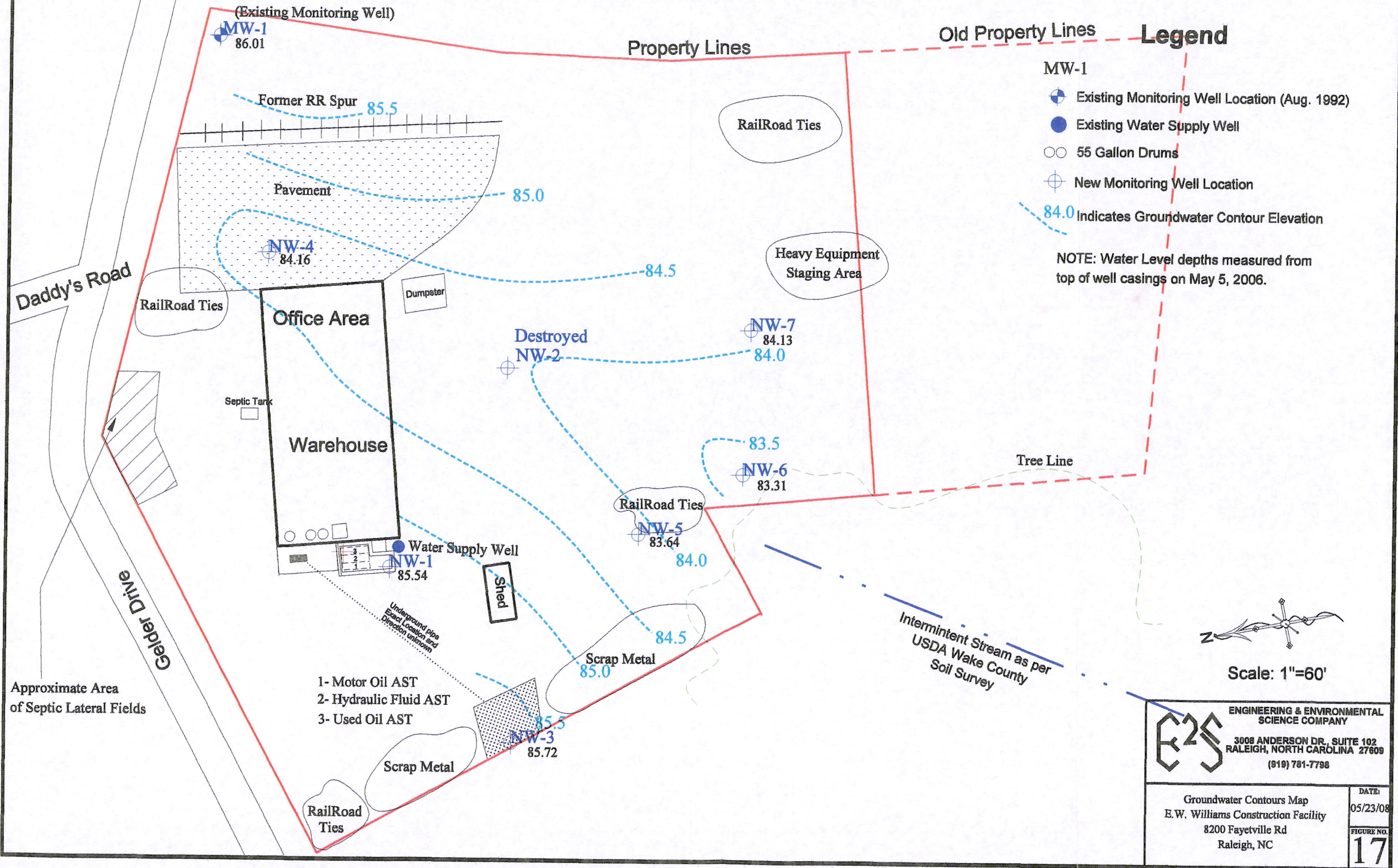


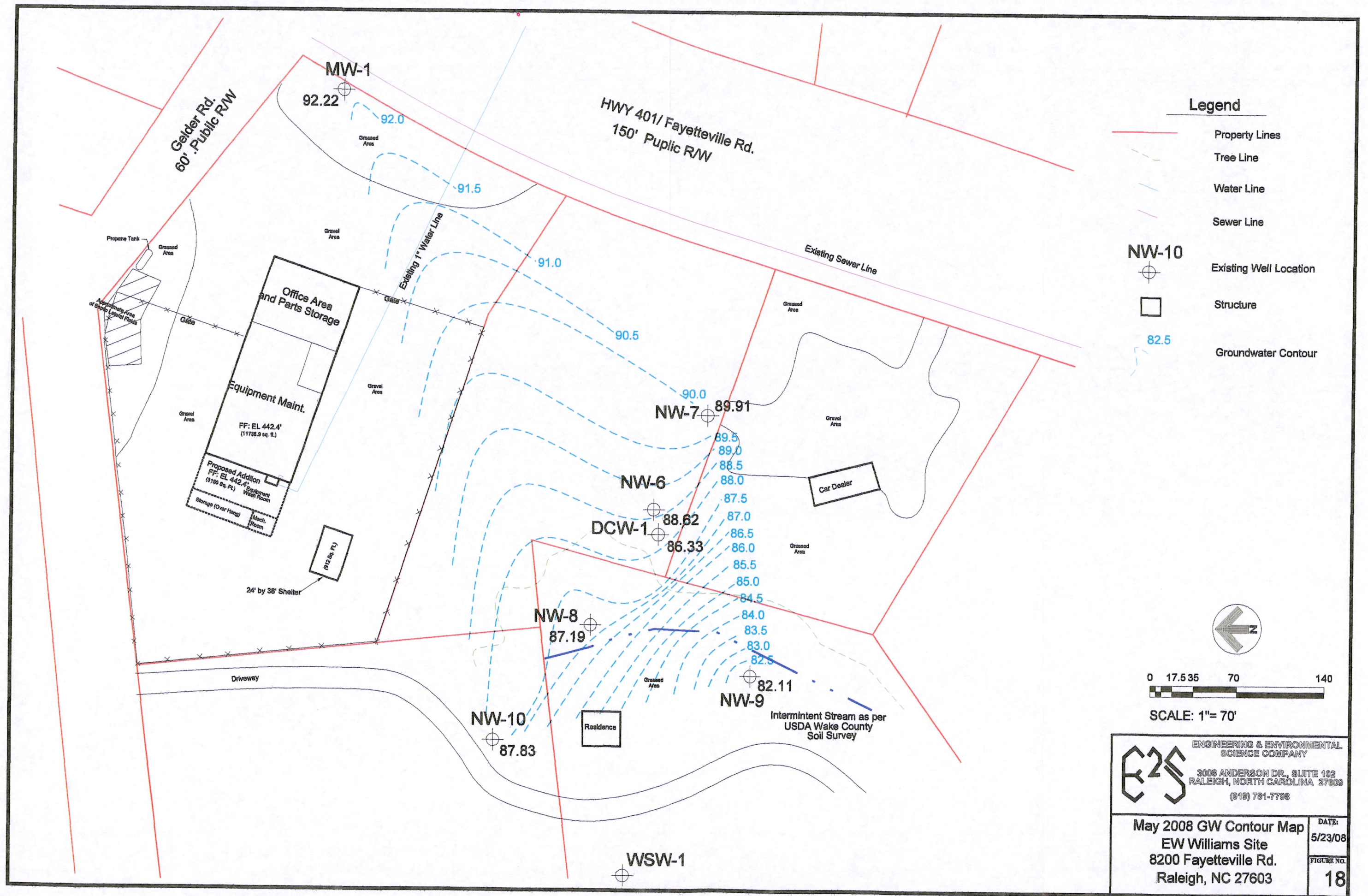
0 15 30 60
SCALE: 1"= 30'

	ENGINEERING & ENVIRONMENTAL SCIENCE COMPANY 3008 Anderson Drive Raleigh, NC 27609 (919) 781-7798		DATE: 5-22-08
			DRAWN: CPM
	Groundwater Results		REVISED: TPS
			SCALE: 1"=30'
	E.W. Williams Construction Facility 8200 Fayetteville Rd Raleigh, NC		Figure: 16

PIN# 0689765074
Gelder and Associates INC
3901 Gelder Dr
Raleigh, NC 27603

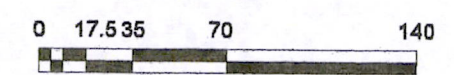
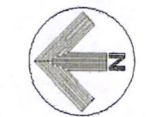
US HWY 401 Southbound (Fayetteville Rd)






Legend

- Property Lines
- Tree Line
- Water Line
- Sewer Line
- NW-10
- Existing Well Location
- Structure
- 82.5
- Groundwater Contour



SCALE: 1"= 70'



ENGINEERING & ENVIRONMENTAL
SCIENCE COMPANY

3008 ANDERSON DR., SUITE 102
RALEIGH, NORTH CAROLINA 27608
(919) 781-7798

<p>May 2008 GW Contour Map</p> <p>EW Williams Site</p> <p>8200 Fayetteville Rd.</p> <p>Raleigh, NC 27603</p>	<p>DATE: 5/23/08</p> <hr/> <p>FIGURE NO. 18</p>
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CSA Table No. 1: Adjacent Property Owners

Tax Map ID/ Parcel ID	Property Owners	Property Owner Address
0689766401	Marsh Gran Family, LLC	3901 Gelder Dr. Raleigh, NC 27603
089765074	Gelder Associates, Inc.	3901 Gelder Dr. Raleigh, NC 27603
0689861048	John & Joanne Feore	1925 Partridge Berry Dr. Raleigh, NC 27606
0689866132	John & Virginia Wright	8209 Fayetteville Rd. Raleigh, NC 27603
0689866343	Richard & Hazel Parrish	8005 Fayetteville Rd. Raleigh, NC 27603
0689867468	Glenn & Annie Pleasant	8114 Fayetteville Rd. Raleigh, NC 27603
0689868537	Kenneth B. Smith	8109 Fayetteville Rd. Raleigh, NC 27603
0689865659	Anthony & Carla Lunsford	3500 Riddle River Church Rd. Hurdle Mills, NC 27541
0689864725	Johnsons Welding, LLC	8116 Fayetteville Rd. Raleigh, NC 27603
0689778458	Nettie C. Senter Heirs C/o Maxine Senter, Exec.	7925 Lake Wheeler Rd. Raleigh, NC 27603
0689962510	Kings Grant Commons Retail Investor	3735 Beam Rd. Unit B Charlotte, NC 28217
0689867474	Fuquay Varina Retail Investors LLC	3735 Beam Rd. Unit B Charlotte, NC 28217
0689855990	Elvin Williford	8301 Fayetteville Rd. Raleigh, NC 27603
0689862418	Liebherr Mining & Construction EQUI	4100 Chestnut Ave. Newport News, VA 23607

CSA Table No. 2: Well Construction Information & Groundwater Elevations (05/05/2006 Water Level Sampling Event)

Well ID	Date Installed	Date Water Level Measured	Well Casing Depth	Screened Interval	Bottom of Well	Top of Casing Elevation*	Depth to Water from Top of Casing	Free Product Thickness**	Groundwater Elevation	Comments
NW-1	11/20/03	05/05/2006	10.0	10.00-20.00	20.0	103.36	17.82	N/A	85.54	Destroyed/ Abandoned March 08
NW-2	11/20/03	---	10.0	10.00-20.00	20.0	94.38	---	N/A	---	Destroyed/ Abandoned May 2006
NW-3	11/20/03	05/05/2006	5.0	5.0-15.00	15.0	93.06	7.34	N/A	85.72	Destroyed/ Abandoned March 08
NW-4	11/20/03	05/05/2006	10.0	10.0-20.00	20.0	100.71	16.55	N/A	84.16	Destroyed/ Abandoned March 08
NW-5	05/04/06	05/05/2006	10.0	10.0-20.0	20.0	92.95	9.31	N/A	83.64	Destroyed/ Abandoned March 08
NW-6	05/04/06	05/05/2006	10.0	10.0-20.0	20.0	91.63	8.32	N/A	83.31	Re-Sampled March 08
NW-7	05/04/06	05/05/2006	10.0	10.0-20.0	20.0	93.83	9.70	N/A	84.13	Re-Sampled March 08
MW-1	Unknown	05/05/2006	Unknown	Unknown	Unknown	102.72	16.71	N/A	87.73	Re-Sampled March 08

Note: Bottom of intermittent stream is at elevation 85.94'.

***Reference point for elevations measurement is the building concrete slab assigned an elevation of 100 ft.**

****No free product present.**

CSA Table No. 3: Well Construction Information & Groundwater Elevations (05/12/2008 Water Level Sampling Event)

Well ID	Date Installed	Date Water Level Measured	Well Casing Depth	Screened Interval	Bottom of Well	Top of Casing Elevation*	Depth to Water from Top of Casing	Free Product Thickness**	Groundwater Elevation	Comments
MW-1	Unknown	5/12/08	Unknown	Unknown	Unknown	108.89	16.67	N/A	92.22	
NW-6	11/20/03	5/12/08	10.0	10.0-20.0	20.0	97.19	8.57	N/A	88.62	
NW-7	11/20/03	5/12/08	10.0	10.0-20.0	20.0	100.00	10.09	N/A	89.91	
NW-8	3/13/08	5/12/08	3.0	3.0-13.00	13.0	90.55	3.36	N/A	87.19	
NW-9	3/13/08	5/12/08	3.0	3.0-13.0	13.0	88.49	6.38	N/A	82.11	
NW-10	3/13/08	5/12/08	5.0	5.0-20.0	20.0	98.96	11.13	N/A	87.83	
DCW-1	3/18/08	5/12/08	Outer casing to 40' casing to 51'	51.0-56.0	56.0	99.24	12.91	N/A	86.33	

Note: Bottom of intermittent stream is at elevation 92.11'.

***Reference point for elevations measurement is NW-7 assigned an elevation of 100 ft.**

****No free product present.**

CSA Table 4 page 1: 2003 & 2004 Soil Sampling Information

Sample ID	Date & Time	Matrix	Depth, ft.	Collection Method	Test
SS-1	7/07/03 12:30	Soil	1.5	Grab, handauger	EPA 8260 & 8270
SS-2	7/24/03 12:00	Soil		Grab	TPH 5030/3550/9071
SS-1	2/05/04 13:00	Soil	0.0	Grab, handauger	EPA 8260 & 8270
SS-2	2/05/04 13:20	Soil	0.0	Grab, handauger	EPA 8260 & 8270
SS-3	2/05/04 13:40	Soil	0.0	Grab, handauger	EPA 8260 & 8270
SS-4	2/05/04 14:00	Soil	0.0	Grab, handauger	EPA 8260 & 8270
SS-5	2/05/04 14:20	Soil	0.0	Grab, handauger	EPA 8260 & 8270
SS-6	2/05/04 14:40	Soil	0.0	Grab, handauger	EPA 8260 & 8270
SS-7	2/05/04 15:00	Soil	4.0	Grab, handauger	EPA 8260 & 8270
SS-8	2/05/04 15:20	Soil	4.0	Grab, handauger	EPA 8260 & 8270
SS-9	2/05/04 15:40	Soil	4.0	Grab, handauger	EPA 8260 & 8270
SS-10	2/05/04 16:00	Soil	4.0	Grab, handauger	EPA 8260 & 8270
SS-11	2/05/04 16:20	Soil	4.0	Grab, handauger	EPA 8260 & 8270
SS-12	2/05/04 16:40	Soil	4.5	Grab, handauger	EPA 8260 & 8270
SS-13	2/05/04 17:00	Soil	4.5	Grab, handauger	EPA 8260 & 8270

CSA Table 4 page 2: 2003 & 2004 Soil Sampling Results

Sample ID	Total Petroleum Hydrocarbon (TPH) Content, ppm		
	5030, as gasoline	3550, as diesel	9071, as oil and grease
SS-2	<1.00	<10.00	397

Analytical Method →			8260	8260	8260	8260	8260	8260
Contaminant of Concern →			Acetone	Benzene	Carbon Disulfide	Chlorobenzene	Toluene	Xylenes
Sample ID	Date Sampled	Sample Depth, ft.						
SS-1	7/07/03	1.5	BDL	BDL	---	BDL	BDL	BDL
SS-1	2/5/04	0.0	0.0471	BDL	BDL	BDL	BDL	BDL
SS-2	2/5/04	0.0	BDL	BDL	BDL	BDL	BDL	BDL
SS-3	2/5/04	0.0	0.0699	BDL	BDL	BDL	BDL	BDL
SS-4	2/5/04	0.0	0.0805	BDL	BDL	BDL	0.0048	0.003
SS-5	2/5/04	0.0	BDL	BDL	BDL	BDL	BDL	BDL
SS-6	2/5/04	0.0	BDL	BDL	BDL	BDL	BDL	BDL
SS-7	2/5/04	4.0	BDL	BDL	BDL	0.0016	BDL	BDL
SS-8	2/5/04	4.0	0.0101	BDL	0.00341	0.0016	BDL	BDL
SS-9	2/5/04	4.0	0.147	BDL	0.0105	BDL	BDL	BDL
SS-10	2/5/04	4.0	0.0603	0.0021	BDL	BDL	BDL	BDL
SS-11	2/5/04	4.0	BDL	BDL	BDL	BDL	BDL	BDL
SS-12	2/5/04	4.5	0.0426	0.0013	BDL	BDL	BDL	BDL
SS-13	2/5/04	4.5	0.0947	0.0019	BDL	BDL	BDL	BDL
Soil-to-Groundwater Standard, ppm →			3	0.0056	4	⁽¹⁾ 0.438	7	5

Bold values exceed Soil-to-Groundwater Standards

(1) Standard for Chlorobenzene calculated using $C_{gw}=0.05$, $K_{oc}=225$, and $H'=0.16113$

CSA Table 5 page 1: 2004 Excavation Closure Analysis Information

Sample ID	Date & Time	Matrix	Depth, ft.	Collection Method	Test
CS-1	4/26/04 11:59	Soil	N/A	Grab	TPH 5030/3550/9071 & TCLP RCRA Metals
CS-2	4/26/04 12:38	Soil	N/A	Grab	TPH 5030/3550/9071 & TCLP RCRA Metals
S-20	4/26/04 14:10	Soil	8.0	Grab	EPA 8260, 8270 & Total RCRA Metals
S-21	4/26/04 15:05	Soil	4.0	Grab	EPA 8260 & 8270
S-22	4/26/04 15:22	Soil	3.0	Grab	EPA 8260 & 8270
S-23	4/26/04 15:31	Soil	3.0	Grab	EPA 8260 & 8270
S-24	4/26/04 16:06	Soil	5.5	Grab	EPA 8260, 8270 & Total RCRA Metals
S-25	4/26/04 16:16	Soil	5.5	Grab	EPA 8260, 8270 & Total RCRA Metals
S-26	4/26/04 16:23	Soil	3.0	Grab	EPA 8260 & 8270
S-27	4/26/04 16:31	Soil	3.0	Grab	EPA 8260 & 8270
S-28	4/26/04 16:42	Soil	3.0	Grab	EPA 8260, 8270 & Total RCRA Metals
S-29	4/26/04 16:56	Soil	3.0	Grab	EPA 8260 & 8270

CSA Table 5 page 2: 2004 Excavation Closure Analysis Results

Sample ID	Total Petroleum Hydrocarbon (TPH) Content, ppm		
	5030, as gasoline	3550, as diesel	9071, as oil & grease
CS-1	<0.12	57	2,190
CS-2	2.41	165	2,480

No TCLP Metals content detected in CS-1 or CS-2

Analytical Method →			8260	8260	8260	Total RCRA	Total RCRA	Total RCRA	Total RCRA	Total RCRA
Contaminant of Concern →			Acetone	Carbon Disulfide	Chloro-benzene	Arsenic	Barium	Chromium	Lead	Mercury
Sample ID	Sample Date	Sample Depth, ft.								
S-20	4/26/04	8.0	<0.0607	<0.00243	0.0028	6.97	23.4	36.0	15.8	<0.133
S-21	4/26/04	4.0	0.126	<0.00205	<0.0021	---	---	---	---	---
S-22	4/26/04	3.0	0.0517	<0.00198	<0.0020	---	---	---	---	---
S-23	4/26/04	3.0	0.256	<0.00281	<0.0028	---	---	---	---	---
S-24	4/26/04	5.5	0.0950	<0.00190	<0.0019	2.75	33.6	18.8	6.89	<0.117
S-25	4/26/04	5.5	0.0979	<0.00232	<0.0024	4.70	41.9	33.9	9.42	<0.118
S-26	4/26/04	3.0	0.215	<0.00232	<0.0023	---	---	---	---	---
S-27	4/26/04	3.0	0.107	0.00135	<0.0013	---	---	---	---	---
S-28	4/26/04	3.0	0.122	0.00577	<0.0020	12.8	46.9	73.7	14.0	0.124
S-29	4/26/04	3.0	<0.0426	0.00282	<0.0017	---	---	---	---	---
Soil-to-Groundwater Standard, ppm →			3	4	⁽¹⁾ 0.438	⁽²⁾ 26.2	848	47	270	⁽³⁾ 0.015

Bold values exceed Soil-to-Groundwater Standards

(1) Standard for Chlorobenzene calculated using $C_{gw}=0.05$, $K_{oc}=225$, and $H'=0.16113$

(2) Standard for Arsenic calculated using $C_{gw}=0.05$, $K_{oc}=26$, and $H'=0$

(3) Standard for Mercury calculated using $C_{gw}=0.0011$, $K_{oc}=0.46$, and $H'=0.467$

CSA Table No. 6: 2006 Investigation Soil Sampling Information

Sample ID	Date & Time	Matrix	Sample Depth, ft.	Collection Method	Test
CT-1	2/7/06 10:00	Soil	9.0	Grab, handauger	8260, 8270
CT-3	2/7/06 11:40	Soil	9.0	Grab, handauger	8260, 8270
CT-7	2/7/06 13:20	Soil	9.0	Grab, handauger	8260, 8270
CT-9	2/7/06 14:22	Soil	9.0	Grab, handauger	8260, 8270
TP-1F	2/8/06 9:30	Soil	N/A	Composite	8260, 8270
TP-1V	2/8/06 9:35	Soil	12-15	Grab, handauger	8260, 8270
TP-2F	2/8/06 12:00	Soil	N/A	Composite	8260, 8270
TP-2V	2/8/06 9:40	Soil	12-15	Grab, handauger	8260, 8270
TP-3F	2/8/06 12:50	Soil	N/A	Composite	8260, 8270
TP-4F	2/8/06 13:10	Soil	N/A	Composite	8260, 8270
TP-5F	2/8/06 13:20	Soil	N/A	Composite	8260, 8270
TP-6F	2/8/06 13:25	Soil	N/A	Composite	8260, 8270
TP-7F	2/8/06 13:30	Soil	N/A	Composite	8260, 8270
TP-8F	2/8/06 13:40	Soil	N/A	Composite	8260, 8270
TP-8V	2/8/06 14:00	Soil	22-25	Grab, handauger	8260, 8270
WDA	5/5/06 11:20	Soil	4.5	Grab, handauger	Total RCRA Metals
WDB-1	5/5/06 10:35	Soil	8.5	Grab, handauger	3030C Total Lead & Chromium

CSA Table No. 7: 2006 Investigation Soil Sampling Results

Page 1

Analytical Method		8260	8260	8260	8260	8270	8270	8270	8270	8270	8270	8270	8270
Contaminant of Concern →		Acetone	Benzene	2-Butanone	MTBE	Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene
Sample ID	Sample Depth, ft												
CT-1	9	<0.0435	<0.00174	<0.0435	<0.00174	<0.332	<0.332	<0.332	<0.332	<0.332	<0.332	<0.332	<0.332
CT-3	9	0.0374	<0.00133	<0.0332	<0.00133	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328
CT-7	9	<0.0387	<0.00155	<0.0387	<0.00155	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328
CT-9	9	<0.0386	<0.00154	<0.0386	<0.00154	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328
TP-1F	N/A	0.143	<0.00176	<0.0439	<0.00176	<0.332	<0.332	<0.332	<0.332	<0.332	<0.332	<0.332	<0.332
TP-1V	12-15	0.0977	<0.00164	<0.0411	<0.00164	<0.331	<0.331	<0.331	<0.331	<0.331	<0.331	<0.331	<0.331
TP-2F	N/A	0.145	<0.00184	<0.0460	<0.00184	<0.325	<0.325	<0.325	0.419	0.438	0.423	<0.325	0.383
TP-2V	12-15	<0.0417	<0.00167	<0.0417	<0.00167	<0.333	<0.333	<0.333	<0.333	<0.333	<0.333	<0.333	<0.333
TP-3F	N/A	0.205	0.00173	<0.0429	<0.00172	1.98	0.69	6.5	17.1	15.5	13.6	8.46	12.3
TP-4F	N/A	0.144	<0.00162	<0.0405	0.0118	<0.324	<0.324	<0.324	<0.324	<0.324	<0.324	<0.324	<0.324
TP-5F	N/A	0.175	<0.00166	<0.0416	<0.00166	<0.331	<0.331	<0.331	<0.331	<0.331	<0.331	<0.331	<0.331
TP-6F	N/A	0.226	<0.00163	<0.0408	0.00262	<0.322	<0.322	<0.322	<0.322	<0.322	<0.322	<0.322	<0.322
TP-7F	N/A	0.142	<0.00172	<0.0430	<0.00172	<0.327	<0.327	<0.327	<0.327	<0.327	<0.327	<0.327	<0.327
TP-8F	N/A	0.391	<0.00193	0.0782	<0.00193	<0.326	<0.326	<0.326	<0.326	<0.326	<0.326	<0.326	<0.326
TP-8V	22-25	0.0547	<0.00170	<0.0426	<0.00170	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328
Soil-to-Groundwater Standard, ppm		3	0.0056	0.7	0.92	8	11	995	0.34	0.091	1	6720	12

Bold values exceed Soil-to-Groundwater Standard Concentrations

No standard available or calculable for Carbazole.

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CSA Table No. 7: 2006 Investigation Soil Sampling Results

Page 2

Analytical Method		8270	8270	8270	8270	8270	8270	8270	8270	8270	8270	8270
Contaminant of Concern →		Carbazole	Chrysene	Dibenz (a,h) anthracene	Dibenzofuran	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
Sample ID	Sample Depth, ft											
CT-1	9	<0.332	<0.332	<0.332	<0.332	<0.332	<0.332	<0.332	<0.332	<0.332	<0.332	<0.332
CT-3	9	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328
CT-7	9	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328
CT-9	9	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328
TP-1F	N/A	<0.332	<0.332	<0.332	<0.332	<0.332	<0.332	<0.332	<0.332	<0.332	<0.332	<0.332
TP-1V	12-15	<0.331	<0.331	<0.331	<0.331	<0.331	<0.331	<0.331	<0.331	<0.331	<0.331	<0.331
TP-2F	N/A	<0.325	0.424	<0.325	<0.325	0.841	<0.325	<0.325	<0.325	<0.325	0.437	0.723
TP-2V	12-15	<0.333	<0.333	<0.333	<0.333	<0.333	<0.333	<0.333	<0.333	<0.333	<0.333	<0.333
TP-3F	N/A	2.74	16	3.59	1.37	37.6	2.66	8.18	0.388	0.589	20.4	28.7
TP-4F	N/A	<0.324	<0.324	<0.324	<0.324	<0.324	<0.324	<0.324	<0.324	<0.324	<0.324	<0.324
TP-5F	N/A	<0.331	<0.331	<0.331	<0.331	<0.331	<0.331	<0.331	<0.331	<0.331	<0.331	<0.331
TP-6F	N/A	<0.322	<0.322	<0.322	<0.322	<0.322	<0.322	<0.322	<0.322	<0.322	<0.322	<0.322
TP-7F	N/A	<0.327	<0.327	<0.327	<0.327	<0.327	<0.327	<0.327	<0.327	<0.327	<0.327	<0.327
TP-8F	N/A	<0.326	<0.326	<0.326	<0.326	<0.326	<0.326	<0.326	<0.326	<0.326	<0.326	<0.326
TP-8V	22-25	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328	<0.328
Soil-to-Groundwater Standard, ppm		NS	38	0.17	4.7	276	44	3	3	0.58	60	286

Bold values exceed Soil-to-Groundwater Standard Concentrations

No standard available or calculable for Carbazole.

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CSA Table No. 8: 2008 Soil Sampling Information

Sample ID	Date & Time	Matrix	Sample Depth, ft.	Collection Method	Test
NW-8	3/14/08 12:00	Soil	2.0' BGS	Grab	8260, 8270, PCB, Total RCRA Metals, Pesticides, Herhicides
NW-9	3/14/08 15:00	Soil	4.0' BGS	Grab	8260, 8270, PCB, Total RCRA Metals, Pesticides, Herhicides
NW-10	3/14/08 16:00	Soil	8.0' BGS	Grab	8260, 8270, PCB, Total RCRA Metals, Pesticides, Herhicides
SB-1	3/14/08 16:30	Soil	8.0' BGS	Grab	8260, 8270, PCB, Total RCRA Metals, Pesticides, Herhicides
SB-2A	3/18/08 9:00	Soil	6.0' BGS	Grab	8260, 8270, PCB, Total RCRA Metals, Pesticides, Herhicides
SB-2B	3/18/08 9:30	Soil	12.0' BGS	Grab	8260, 8270, PCB, Total RCRA Metals, Pesticides, Herhicides
SB-3	3/18/08 10:30	Soil	8.0' BGS	Grab	8260, 8270, PCB, Total RCRA Metals, Pesticides, Herhicides
SB-4A	3/18/08 11:30	Soil	6.0' BGS	Grab	8260, 8270, PCB, Total RCRA Metals, Pesticides, Herhicides
SB-4B	3/18/08 12:00	Soil	12.0' BGS	Grab	8260, 8270, PCB, Total RCRA Metals, Pesticides, Herhicides
SB-5A	3/18/08 10:30	Soil	4.0' BGS	Grab	8260, 8270, PCB, Total RCRA Metals, Pesticides, Herhicides
SB-5B	3/18/08 11:00	Soil	12.0' BGS	Grab	8260, 8270, PCB, Total RCRA Metals, Pesticides, Herhicides
SB-6	3/18/08 12:00	Soil	8.0' BGS	Grab	8260, 8270, PCB, Total RCRA Metals, Pesticides, Herhicides

CSA Table No. 9: 2008 Soils Metals & PCBS Results

Page 1

Analytical Method →			6010	8260	6010	6010	6010	7470	6010	6010	8082
Contaminant of Concern →			Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver	PCB
Sample	Date	Sample									
ID	Sampled	Depth, ft.									
NW-8	3/14/2008 12:00	2.0' BGS	< 2.5	8.4	< 0.5	5.1	< 5	< 0.2	< 20	< 2.5	< 0.2
NW-9	3/14/2008 15:00	4.0' BGS	< 2.5	26	< 0.5	5.5	6.2	< 0.2	< 20	< 2.5	< 0.2
NW-10	3/14/2008 16:00	8.0' BGS	< 2.5	13	< 0.5	24	< 5	< 0.2	< 20	< 2.5	< 0.2
SB-1	3/14/2008 16:30	8.0' BGS	3.4	44	< 0.5	20	18	< 0.2	< 20	< 2.5	< 0.2
SB-2A	3/18/2008 9:00	6.0' BGS	< 2.5	140	< 0.5	10	59	< 0.2	< 20	< 2.5	< 0.2
SB-2B	3/18/2008 9:30	12.0' BGS	< 2.5	16	< 0.5	5.5	5.5	< 0.2	< 2.5	< 2.5	< 0.2
SB-3	3/18/2008 10:30	8.0' BGS	5.2	42	< 0.5	53	8.4	< 0.2	< 20	< 2.5	< 0.2
SB-4A	3/18/2008 11:30	6.0' BGS	3.6	67	< 0.5	17	91	< 0.2	< 20	< 2.5	< 0.2
SB-4B	3/18/2008 12:00	12.0' BGS	3.5	11	< 0.5	34	< 5	< 0.2	< 20	< 2.5	< 0.2
SB-5A	3/18/2008 10:30	4.0' BGS	< 2.5	58	< 0.5	15	110	< 0.2	< 10	< 2.5	< 0.2
SB-5B	3/18/2008 11:00	12.0' BGS	2.7	8	< 0.5	21	< 5	< 0.2	< 10	< 2.5	< 0.2
SB-6	3/18/2008 12:00	8.0' BGS	9.7	16	< 0.5	48	< 5	< 0.2	< 10	< 2.5	< 0.2
Soil-to-Groundwater MSCC, ppm →				848	N/A	27	270	N/A	N/A	N/A	N/A
Residential MSCC, ppm →				1095	N/A	47	400	N/A	N/A	N/A	N/A

Bold values exceed 2 Standard Concentrations.

No values exceed GCL Standard Concentrations.

Highlighted values indicated a result above Reporting Limits

CSA Table No. 9: Soils VOC's and SVOC's

Page 2

Analytical Method →		8260	8260	8260	8260	8260	8260	8260	8260
Contaminant of Concern →		1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene
Sample ID	Sampled Date								
NW-8	3/14/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
NW-9	3/14/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
NW-10	3/14/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB-1	3/14/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB-2A	3/17/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB-2B	3/17/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB-3	3/17/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB-4A	3/17/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB-4B	3/17/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB-5A	3/18/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB-5B	3/18/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB-6	3/18/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Soil-to-Groundwater MSCC, ppm →			1.6	0.001					
Residential MSCC, ppm →			4380	3					

Bold values exceed 2 Standard Concentrations.

No values exceed GCL Standard Concentrations.

Highlighted values indicated a result above Reporting Limits

CSA Table No. 9: Soils VOC's and SVOC's

Page 3

Analytical Method →		8260	8260	8260	8260	8260	8260	8260	8260
Contaminant of Concern →									
Sample ID	Sampled Date	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane
NW-8	3/14/2008	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
NW-9	3/14/2008	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
NW-10	3/14/2008	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
SB-1	3/14/2008	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
SB-2A	3/17/2008	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
SB-2B	3/17/2008	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
SB-3	3/17/2008	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
SB-4A	3/17/2008	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
SB-4B	3/17/2008	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
SB-5A	3/18/2008	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
SB-5B	3/18/2008	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
SB-6	3/18/2008	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
Soil-to-Groundwater MSCC, ppm →				7.5		0.000002			0.0026
Residential MSCC, ppm →				782		0.0075			8

Bold values exceed 2 Standard Concentrations.

No values exceed GCL Standard Concentrations.

Highlighted values indicated a result above Reporting Limits

CSA Table No. 9: Soils VOC's and SVOC's

Page 4

Analytical Method →		8260	8260	8260	8260	8260	8260	8260	8260
Contaminant of Concern →		1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichloropropane	2,2-Dichloropropane	2-Chlorotoluene	4-Chlorotoluene	Benzene
Sample ID	Sampled Date								
NW-8	3/14/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005
NW-9	3/14/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005
NW-10	3/14/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005
SB-1	3/14/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005
SB-2A	3/17/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005
SB-2B	3/17/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005
SB-3	3/17/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005
SB-4A	3/17/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005
SB-4B	3/17/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005
SB-5A	3/18/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005
SB-5B	3/18/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005
SB-6	3/18/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005
Soil-to-Groundwater MSCC, ppm →		7.3	6.5	0.0026					0.0056
Residential MSCC, ppm →		782	1400	9					18

Bold values exceed 2 Standard Concentrations.

No values exceed GCL Standard Concentrations.

Highlighted values indicated a result above Reporting Limits

CSA Table No. 9: Soils VOC's and SVOC's

Page 5

Analytical Method →		8260	8260	8260	8260	8260	8260	8260		8260
Contaminant of Concern →		Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform
Sample ID	Sampled Date									
NW-8	3/14/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005
NW-9	3/14/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005
NW-10	3/14/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005
SB-1	3/14/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005
SB-2A	3/17/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005
SB-2B	3/17/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005
SB-3	3/17/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005
SB-4A	3/17/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005
SB-4B	3/17/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005
SB-5A	3/18/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005
SB-5B	3/18/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005
SB-6	3/18/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005
Soil-to-Groundwater MSCC, ppm →					0.028			0.44		
Residential MSCC, ppm →					81			312		

Bold values exceed 2 Standard Concentrations.

No values exceed GCL Standard Concentrations.

Highlighted values indicated a result above Reporting Limits

CSA Table No. 9: Soils VOC's and SVOC's

Page 6

Analytical Method →		8260	8260	8260	8260	8260	8260	8260	8260	8260
Contaminant of Concern →		Chloromethane	cis-1,2-Dichloroethene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m,p-Xylene
Sample ID	Sampled Date									
NW-8	3/14/2008	<0.01	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
NW-9	3/14/2008	<0.01	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
NW-10	3/14/2008	<0.01	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
SB-1	3/14/2008	<0.01	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
SB-2A	3/17/2008	<0.01	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
SB-2B	3/17/2008	<0.01	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
SB-3	3/17/2008	<0.01	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
SB-4A	3/17/2008	<0.01	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
SB-4B	3/17/2008	<0.01	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
SB-5A	3/18/2008	<0.01	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
SB-5B	3/18/2008	<0.01	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
SB-6	3/18/2008	<0.01	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005
Soil-to-Groundwater MSCC, ppm →		0.02	0.35	0.0022			4.6	0.26	1.7	
Residential MSCC, ppm →		49	156	7			1560	3.1	1564	

Bold values exceed 2 Standard Concentrations.

No values exceed GCL Standard Concentrations.

Highlighted values indicated a result above Reporting Limits

CSA Table No. 9: Soils VOC's and SVOC's

Page 7

Analytical Method →		8260	8260	8260	8260	8260	8260	8260	8260	8260
Contaminant of Concern →		Methylene Chloride	n-Butylbenzene	n-Propylbenzene	Naphthalene	o-Xylene	p-Isopropyltoluene	sec-Butylbenzene	Styrene	tert-Butylbenzene
Sample ID	Sampled Date									
NW-8	3/14/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
NW-9	3/14/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
NW-10	3/14/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB-1	3/14/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB-2A	3/17/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB-2B	3/17/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB-3	3/17/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB-4A	3/17/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB-4B	3/17/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB-5A	3/18/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB-5B	3/18/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB-6	3/18/2008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Soil-to-Groundwater MSCC, ppm →		0.02		1.7	0.58			3.3	2.2	3.4
Residential MSCC, ppm →		85		626	313			626	3128	626

Bold values exceed 2 Standard Concentrations.

No values exceed GCL Standard Concentrations.

Highlighted values indicated a result above Reporting Limits

CSA Table No. 9: Soils VOC's and SVOC's

Page 8

Analytical Method →		8260	8260	8260	8260	8260	8260	8270	8270	8270
Contaminant of Concern →		Tetrachloroethene	Toluene	trans-1,2-Dichloroethene	Trichloroethene	Trichlorofluoromethane	Vinyl Chloride	Acenaphthene	Acenaphthylene	Anthracene
Sample ID	Sampled Date									
NW-8	3/14/2008	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.2	<0.2	<0.2
NW-9	3/14/2008	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.2	<0.2	<0.2
NW-10	3/14/2008	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.2	<0.2	<0.2
SB-1	3/14/2008	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.2	<0.2	<0.2
SB-2A	3/17/2008	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	0.3	<0.2	0.5
SB-2B	3/17/2008	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.2	<0.2	<0.2
SB-3	3/17/2008	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.2	<0.2	<0.2
SB-4A	3/17/2008	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.2	<0.2	<0.2
SB-4B	3/17/2008	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.2	<0.2	<0.2
SB-5A	3/18/2008	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.2	<0.2	<0.2
SB-5B	3/18/2008	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.2	<0.2	<0.2
SB-6	3/18/2008	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.2	<0.2	<0.2
Soil-to-Groundwater MSCC, ppm →			7.3	0.54		31	0.000094	8.2	11	1000
Residential MSCC, ppm →			3200	320		4692	0.46	940	469	4600

Bold values exceed 2 Standard Concentrations.

No values exceed GCL Standard Concentrations.

Highlighted values indicated a result above Reporting Limits

CSA Table No. 9: Soils VOC's and SVOC's

Page 9

Analytical Method →		8270	8270	8270	8270	8270	8270	8270	8270	8270	8270
Contaminant of Concern →											
Sample ID	Sampled Date	Benzo (b) fluoranthene	Benzo (a) anthracene	Benzo (k) fluoranthene	Benzidine	Benzo (a) pyrene	Benzo (g,h,i) perylene	bis (2-Chloroethoxy) methane	bis (2-chloroethyl) ether	bis (2-Chloroisopropyl) ether	bis (2-Ethylhexyl) phthalate
NW-8	3/14/2008	<0.2	<0.2	<0.2	<0.5	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2
NW-9	3/14/2008	<0.2	<0.2	<0.2	<0.5	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2
NW-10	3/14/2008	<0.2	<0.2	<0.2	<0.5	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2
SB-1	3/14/2008	<0.2	<0.2	<0.2	<0.5	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2
SB-2A	3/17/2008	1.3	1.3	1.3	<0.5	1	0.4	<0.2	<0.2	<0.2	<0.2
SB-2B	3/17/2008	<0.2	<0.2	<0.2	<0.5	<0.1	<0.2	<0.2	<0.2	<0.2	0.4
SB-3	3/17/2008	<0.2	<0.2	<0.2	<0.5	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2
SB-4A	3/17/2008	<0.2	<0.2	<0.2	<0.5	<0.1	<0.2	<0.2	<0.2	<0.2	0.4
SB-4B	3/17/2008	<0.2	<0.2	<0.2	<0.5	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2
SB-5A	3/18/2008	<0.2	<0.2	<0.2	<0.5	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2
SB-5B	3/18/2008	<0.2	<0.2	<0.2	<0.5	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2
SB-6	3/18/2008	<0.2	<0.2	<0.2	<0.5	<0.1	<0.2	<0.2	<0.2	<0.2	0.5
Soil-to-Groundwater MSCC, ppm →		1.2	0.34	12	N/A	0.091	6700	N/A	N/A	N/A	5.6
Residential MSCC, ppm →		0.88	0.88	9	N/A	0.088	469	N/A	N/A	N/A	46

Bold values exceed 2 Standard Concentrations.

No values exceed GCL Standard Concentrations.

Highlighted values indicated a result above Reporting Limits

CSA Table No. 9: Soils VOC's and SVOC's

Page 10

Analytical Method →		8270	8270	8270	8270	8270	8270	8270	8270	8270	8270
Contaminant of Concern →		4-Bromophenyl phenyl ether	Butyl benzyl phthalate	p-Chloro-m-cresol	2-Chlorophenol	2-Chloronaphthalene	4-Chlorophenyl phenyl ether	Chrysene	Dibenzo (a,h)anthracene	Di-n-butyl phthalate	1,2-Dichlorobenzene
Sample ID	Sampled Date										
NW-8	3/14/2008	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
NW-9	3/14/2008	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
NW-10	3/14/2008	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SB-1	3/14/2008	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SB-2A	3/17/2008	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	1.3	0.2	<0.2	<0.2
SB-2B	3/17/2008	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SB-3	3/17/2008	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SB-4A	3/17/2008	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SB-4B	3/17/2008	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SB-5A	3/18/2008	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SB-5B	3/18/2008	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SB-6	3/18/2008	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Soil-to-Groundwater MSCC, ppm →		N/A	N/A	N/A	N/A	N/A	N/A	38	0.17	N/A	0.28
Residential MSCC, ppm →		N/A	N/A	N/A	N/A	N/A	N/A	88	0.088	N/A	1400

Bold values exceed 2 Standard Concentrations.

No values exceed GCL Standard Concentrations.

Highlighted values indicated a result above Reporting Limits

CSA Table No. 9: Soils VOC's and SVOC's

Page 11

Analytical Method →		8270	8270	8270	8270	8270	8270	8270	8270	8270	8270
Contaminant of Concern →											
Sample ID	Sampled Date	1,3-Dichlorobenzene	1,4-dichlorobenzene	2,4 Dichlorophenol	3,3'-Dichlorobenzidene	Diethyl phthalate	Dimethyl phthalate	2,4-Dimethylphenol	4,6-Dinitro-o-crestol	1,2-Diphenylhydrazine	2,4-Dinitrotoluene
NW-8	3/14/2008	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2
NW-9	3/14/2008	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2
NW-10	3/14/2008	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2
SB-1	3/14/2008	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2
SB-2A	3/17/2008	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2
SB-2B	3/17/2008	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2
SB-3	3/17/2008	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2
SB-4A	3/17/2008	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2
SB-4B	3/17/2008	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2
SB-5A	3/18/2008	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2
SB-5B	3/18/2008	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2
SB-6	3/18/2008	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2
Soil-to-Groundwater MSCC, ppm →		6.5	0.023	N/A	N/A	N/A	N/A	0.9	N/A	N/A	N/A
Residential MSCC, ppm →		1400	27	N/A	N/A	N/A	N/A	312	N/A	N/A	N/A

Bold values exceed 2 Standard Concentrations.

No values exceed GCL Standard Concentrations.

Highlighted values indicated a result above Reporting Limits

CSA Table No. 9: Soils VOC's and SVOC's

Page 12

Analytical Method →		8270	8270	8270	8270	8270	8270	8270	8270	8270	8270
Contaminant of Concern →		2,6-Dinitrotoluene	Di-n-octyl phthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Hexachlorobutadiene	Hexachlorocyclopentadiene	Hexachloroethane	Indeno (1,2,3-cd) pyrene	2,4-Dinitrophenol
Sample ID	Sampled Date										
NW-8	3/14/2008	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5
NW-9	3/14/2008	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5
NW-10	3/14/2008	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5
SB-1	3/14/2008	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5
SB-2A	3/17/2008	<0.2	<0.2	2.7	0.2	<0.2	<0.2	<0.2	<0.2	0.4	<0.5
SB-2B	3/17/2008	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5
SB-3	3/17/2008	<0.2	<0.2	0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5
SB-4A	3/17/2008	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5
SB-4B	3/17/2008	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5
SB-5A	3/18/2008	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5
SB-5B	3/18/2008	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5
SB-6	3/18/2008	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5
Soil-to-Groundwater MSCC, ppm →		N/A	N/A	280	44	N/A	0.26	N/A	N/A	3.3	N/A
Residential MSCC, ppm →		N/A	N/A	620	620	N/A	3.1	N/A	N/A	0.88	N/A

Bold values exceed 2 Standard Concentrations.

No values exceed GCL Standard Concentrations.

Highlighted values indicated a result above Reporting Limits

CSA Table No. 9: Soils VOC's and SVOC's

Page 13

Analytical Method →		8270	8270	8270	8270	8270	8270	8270	8270	8270	8270
Contaminant of Concern →		Isophorone	Naphthalene	Nitrobenzene	2-Nitrophenol	4-Nitrophenol	N-Nitrosodimethylamine	N-Nitrosodi-n-propylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenol
Sample ID	Sampled Date										
NW-8	3/14/2008	<0.2	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.5	<0.5
NW-9	3/14/2008	<0.2	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.5	<0.5
NW-10	3/14/2008	<0.2	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.5	<0.5
SB-1	3/14/2008	<0.2	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.5	<0.5
SB-2A	3/17/2008	<0.2	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.5	<0.5
SB-2B	3/17/2008	<0.2	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.5	<0.5
SB-3	3/17/2008	<0.2	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.5	<0.5
SB-4A	3/17/2008	<0.2	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.5	<0.5
SB-4B	3/17/2008	<0.2	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.5	<0.5
SB-5A	3/18/2008	<0.2	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.5	<0.5
SB-5B	3/18/2008	<0.2	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.5	<0.5
SB-6	3/18/2008	<0.2	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	<0.5	<0.5
Soil-to-Groundwater MSCC, ppm →		N/A	0.58	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Residential MSCC, ppm →		N/A	313	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Bold values exceed 2 Standard Concentrations.

No values exceed GCL Standard Concentrations.

Highlighted values indicated a result above Reporting Limits

CSA Table No. 9: Soils VOC's and SVOC's

Page 14

Analytical Method →		8270	8270	8270	8270	8270	8081	8081	8081	8081	8081
Contaminant of Concern →		Phenanthrene	Pyrene	1,2,4-Trichlorobenzene	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	Delta-BHC	4,4'-DDE	4,4'-DDT	Aldrin	Alpha-BHC
Sample ID	Sampled Date										
NW-8	3/14/2008	<0.2	<0.2	<0.2	<0.5	<0.5	<0.04	<0.04	<0.04	<0.025	<0.04
NW-9	3/14/2008	<0.2	<0.2	<0.2	<0.5	<0.5	<0.04	<0.04	<0.04	<0.025	<0.04
NW-10	3/14/2008	<0.2	<0.2	<0.2	<0.5	<0.5	<0.04	<0.04	<0.04	<0.025	<0.04
SB-1	3/14/2008	<0.2	<0.2	<0.2	<0.5	<0.5	<0.04	<0.04	<0.04	<0.025	<0.04
SB-2A	3/17/2008	1.9	1.9	<0.2	<0.5	<0.5	<0.04	<0.04	<0.04	<0.025	<0.04
SB-2B	3/17/2008	<0.2	<0.2	<0.2	<0.5	<0.5	<0.04	<0.04	<0.04	<0.025	<0.04
SB-3	3/17/2008	<0.2	0.2	<0.2	<0.5	<0.5	<0.04	<0.04	<0.04	<0.025	<0.04
SB-4A	3/17/2008	<0.2	<0.2	<0.2	<0.5	<0.5	<0.04	<0.04	<0.04	<0.025	<0.04
SB-4B	3/17/2008	<0.2	<0.2	<0.2	<0.5	<0.5	<0.04	<0.04	<0.04	<0.025	<0.04
SB-5A	3/18/2008	<0.2	0.2	<0.2	<0.5	<0.5	<0.04	<0.04	<0.04	<0.025	<0.04
SB-5B	3/18/2008	<0.2	<0.2	<0.2	<0.5	<0.5	<0.04	<0.04	<0.04	<0.025	<0.04
SB-6	3/18/2008	<0.2	<0.2	<0.2	<0.5	<0.5	<0.04	<0.04	<0.04	<0.025	<0.04
Soil-to-Groundwater MSCC, ppm →		60	290	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Residential MSCC, ppm →		469	469	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Bold values exceed 2 Standard Concentrations.

No values exceed GCL Standard Concentrations.

Highlighted values indicated a result above Reporting Limits

CSA Table No. 9: Soils VOC's and SVOC's

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Analytical Method →		8081	8081	8081	8081	8081	8081	8081	8081	8081	8081
Contaminant of Concern →		Alpha-Endosulfan (1)	Beta-BHC	4,4'-DDD	Chlordane	Toxaphene	Dieldrin	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Gamma-BHC (Lindane)
Sample ID	Sampled Date										
NW-8	3/14/2008	<0.08	<0.04	<0.04	<0.2	<0.4	<0.025	<0.04	<0.025	<0.04	<0.04
NW-9	3/14/2008	<0.08	<0.04	<0.04	<0.2	<0.4	<0.025	<0.04	<0.025	<0.04	<0.04
NW-10	3/14/2008	<0.08	<0.04	<0.04	<0.2	<0.4	<0.025	<0.04	<0.025	<0.04	<0.04
SB-1	3/14/2008	<0.08	<0.04	<0.04	<0.2	<0.4	<0.025	<0.04	<0.025	<0.04	<0.04
SB-2A	3/17/2008	<0.08	<0.04	<0.04	<0.2	<0.4	<0.025	<0.04	<0.025	<0.04	<0.04
SB-2B	3/17/2008	<0.08	<0.04	<0.04	<0.2	<0.4	<0.025	<0.04	<0.025	<0.04	<0.04
SB-3	3/17/2008	<0.08	<0.04	<0.04	<0.2	<0.4	<0.025	<0.04	<0.025	<0.04	<0.04
SB-4A	3/17/2008	<0.08	<0.04	<0.04	<0.2	<0.4	<0.025	<0.04	<0.025	<0.04	<0.04
SB-4B	3/17/2008	<0.08	<0.04	<0.04	<0.2	<0.4	<0.025	<0.04	<0.025	<0.04	<0.04
SB-5A	3/18/2008	<0.08	<0.04	<0.04	<0.2	<0.4	<0.025	<0.04	<0.025	<0.04	<0.04
SB-5B	3/18/2008	<0.08	<0.04	<0.04	<0.2	<0.4	<0.025	<0.04	<0.025	<0.04	<0.04
SB-6	3/18/2008	<0.08	<0.04	<0.04	<0.2	<0.4	<0.025	<0.04	<0.025	<0.04	<0.04
Soil-to-Groundwater MSCC, ppm →		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Residential MSCC, ppm →		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Bold values exceed 2 Standard Concentrations.

No values exceed GCL Standard Concentrations.

Highlighted values indicated a result above Reporting Limits

CSA Table No. 9: Soils VOC's and SVOC's

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Analytical Method →		8081	8081	8081	8151	8151	8151	8151	8151	8151	8151
Contaminant of Concern →		Heptachlor	Heptachlor Epoxide	Beta-Endosulfan (II)	2,4-D	MCPP	MCPPA	Dinoseb	Dichloroprop	Dicamba	Dalapon
Sample ID	Sampled Date										
NW-8	3/14/2008	<0.04	<0.04	<0.08	<0.04	<5	<4	<0.0014	<0.014	<0.006	<0.12
NW-9	3/14/2008	<0.04	<0.04	<0.08	<0.05	<5	<4	<0.0014	<0.014	<0.006	<0.12
NW-10	3/14/2008	<0.04	<0.04	<0.08	<0.05	<5	<4	<0.0014	<0.014	<0.006	<0.12
SB-1	3/14/2008	<0.04	<0.04	<0.08	<0.05	<5	<4	<0.0014	<0.014	<0.006	<0.12
SB-2A	3/17/2008	<0.04	<0.04	<0.08	<0.05	<5	<4	<0.0014	<0.014	<0.006	<0.12
SB-2B	3/17/2008	<0.04	<0.04	<0.08	<0.05	<5	<4	<0.0014	<0.014	<0.006	<0.12
SB-3	3/17/2008	<0.04	<0.04	<0.08	<0.05	<5	<4	<0.0014	<0.014	<0.006	<0.12
SB-4A	3/17/2008	<0.04	<0.04	<0.08	<0.05	<5	<4	<0.0014	<0.014	<0.006	<0.12
SB-4B	3/17/2008	<0.04	<0.04	<0.08	<0.05	<5	<4	<0.0014	<0.014	<0.006	<0.12
SB-5A	3/18/2008	<0.04	<0.04	<0.08	<0.05	<5	<4	<0.0014	<0.014	<0.006	<0.12
SB-5B	3/18/2008	<0.04	<0.04	<0.08	<0.05	<5	<4	<0.0014	<0.014	<0.006	<0.12
SB-6	3/18/2008	<0.04	<0.04	<0.08	<0.05	<5	<4	<0.0014	<0.014	<0.006	<0.12
Soil-to-Groundwater MSCC, ppm →		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Residential MSCC, ppm →		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Bold values exceed 2 Standard Concentrations.

No values exceed GCL Standard Concentrations.

Highlighted values indicated a result above Reporting Limits

CSA Table No. 9: Soils VOC's and SVOC's

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Analytical Method →		8151	8151	8151
Contaminant of Concern →				
Sample ID	Sampled Date			
		2,4,5-TP	2,4,5-T	2,4-DB
NW-8	3/14/2008	<0.004	<0.004	<0.2
NW-9	3/14/2008	<0.004	<0.004	<0.2
NW-10	3/14/2008	<0.004	<0.004	<0.2
SB-1	3/14/2008	<0.004	<0.004	<0.2
SB-2A	3/17/2008	<0.004	<0.004	<0.2
SB-2B	3/17/2008	<0.004	<0.004	<0.2
SB-3	3/17/2008	<0.004	<0.004	<0.2
SB-4A	3/17/2008	<0.004	<0.004	<0.2
SB-4B	3/17/2008	<0.004	<0.004	<0.2
SB-5A	3/18/2008	<0.004	<0.004	<0.2
SB-5B	3/18/2008	<0.004	<0.004	<0.2
SB-6	3/18/2008	<0.004	<0.004	<0.2
Soil-to-Groundwater MSCC, ppm →		N/A	N/A	N/A
Residential MSCC, ppm →		N/A	N/A	N/A

Bold values exceed 2 Standard Concentrations.
 No values exceed GCL Standard Concentrations.
 Highlighted values indicated a result above Reporting Limits

CSA Table 10: 2003 Groundwater Analytical Test Results

Analytical Method →		601/8260	602/8260
Contaminant of Concern →		1,2-Dichloroethane	MTBE
Sample ID	Sample Date		
MW-1	7/07/03	1.0	---
WSW	7/07/03	1.7	<1.0
NW-1	11/21/03	<0.0010	0.002
NW-2	11/21/03	<0.0010	0.0015
NW-3	11/21/03	<0.0010	<0.001
NW-4	11/21/03	<0.0010	<0.001
Class GA Groundwater Standards, ppb →		0.38	200

Bold values exceed Class GA Groundwater Standard concentrations.

CSA Table 11: 2006 Groundwater Sampling Information

Sample ID	Date & Time	Matrix	Depth, ft.	Collection Method	Test
NW-1	5/5/06 11:40	Ground Water	N/A	Grab, bailer	3030C Total Lead & Chromium
NW-5	5/5/06 15:50	Ground Water	N/A	Grab, bailer	Total RCRA Metals, 601, 602, 625
NW-6	5/5/06 15:20	Ground Water	N/A	Grab, bailer	Total RCRA Metals, 601, 602, 625
NW-7	5/5/06 14:30	Ground Water	N/A	Grab, bailer	Total RCRA Metals, 601, 602, 625
WSW-1	5/5/06 12:20	Drinking Water	N/A	Grab, bailer	3030C Total Lead & Chromium

CSA Table 12: 2006 Groundwater Analytical Test Results

ANALYTICAL METHOD →		6010	6010	6010	6010	6010	7470	6210	6210
Contaminant of Concern →		Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Benzene	MTBE
Sample ID	Date Sampled								
NW-1	5/5/06	---	---	---	5.80	59.7	---	---	---
NW-5	5/5/06	73.7	948	14.0	308	828	<0.200	<0.500	0.690
NW-6	5/5/06	<100	1400	11.0	757	921	<0.200	<0.500	2.58
NW-7	5/5/06	27.5	374	7.0	337	166	0.209	8.48	26.2
WSW-1	5/5/06	---	---	---	<5.0	24.7	---	---	---
2L Standard, ppb →		50	2000	5	50	15	1.1	1	200
GCL, ppb →		NS	2000000	NS	50000	15000	NS	5000	200000

Red values exceed 2L Standard Concentrations.
No values exceed GCL Standard Concentrations.

CSA Table 13: 2008 Groundwater Sample Information

Sample ID	Date & Time	Matrix	Sample Depth, ft.	Collection Method	Test
MW-1	3/19/08 11:00	Ground Water	---	Grab	PCB, EPA 601, EPA 602, EPA 625, Total Metals
NW-6	3/19/08 12:30	Ground Water	---	Grab	8260, 8270, PCB, Total RCRA Metals, Pesticides, Herhicides
NW-7	3/19/08 14:00	Ground Water	---	Grab	8260, 8270, PCB, Total RCRA Metals, Pesticides, Herhicides
NW-8	3/17/08 16:00	Ground Water	---	Grab	PCB, EPA 601, EPA 602, EPA 625, Total Metals
NW-9	3/17/08 14:30	Ground Water	---	Grab	PCB, EPA 601, EPA 602, EPA 625, Total Metals
NW-10	3/17/08 15:15	Ground Water	---	Grab	PCB, EPA 601, EPA 602, EPA 625, Total Metals
DCW-1	3/17/08 16:00	Ground Water	---	Grab	PCB, EPA 601, EPA 602, EPA 625, Total Metals
WSW-1	3/17/08 15:30	Drinking Water	---	Grab	PCB, EPA 601, EPA 602, EPA 625, Total Metals

CSA Table No. 14: 2008 & 2006 Metals & PCB Groundwater Analytical Results

Page 1

Analytical Method →			6010	8260	6010	6010	6010	7470	6010	6010	8082
Contaminant of Concern →			Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver	PCB
Sample	Date	Sample									
ID	Sampled	Depth, ft.									
DCW-1	3/18/2008	N/A	<20.0	<40.0	<5.0	<20.0	<15.0	<0.2	<20.0	<20.0	<1.0
MW-1	3/19/2008	N/A	<20.0	48	<5.0	<20.0	<15.0	<0.2	<20.0	<20.0	<1.0
NW-6	3/19/2008	N/A	25	260	<5.0	35	69	3.6	<20.0	<20.0	<1.0
	5/5/2006	N/A	<100.0	1400	11	757	921	<0.2	---	---	---
NW-7	3/19/2008	N/A	<20.0	210	<5.0	180	64	1.4	<50.0	<4.0	<1.0
	5/5/2006	N/A	27.5	374	7	337	166	0.209	---	---	---
NW-8	3/17/2008	N/A	<4.0	<100.0	<1.0	<4.0	<4.0	<0.2	<20.0	<4.0	<1.0
NW-9	3/17/2008	N/A	<20.0	270	<5.0	<50.0	42	<0.2	<50.0	<20.0	<1.0
NW-10	3/17/2008	N/A	<4.0	<100.0	<1.0	<4.0	<4.0	<0.2	<20.0	<4.0	<1.0
WSW-1	3/17/2008	N/A	<4.0	<100.0	<1.0	<4.0	<4.0	<0.2	<20.0	<4.0	<1.0
Former on-site WSW	5/5/2006	N/A	---	---	---	<5.0	24.7	---	---	---	---
NW-1	5/5/2006	N/A	---	---	---	5.8	59.7	---	---	---	---
NW-5	5/5/2006	N/A	73.7	948	14	308	828	<0.2	---	---	---
2L Standard, ppb →			50	2000	5	50	15	1.1	N/A	N/A	N/A
GCL, ppb →			NS	2000000	NS	50000	15000	NS	N/A	N/A	N/A

Bold values exceed 2 Standard Concentrations.

No values exceed GCL Standard Concentrations.

Highlighted values indicated a result above Reporting Limits

CSA Table No. 14: VOC's & Svoc's Groundwater Analytical Results

Page 2

Analytical Method →		624	624	624	624	624	624	624	624	624	624
Contaminant of Concern →		Acrolein	Acrylonitrile	Benzene	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane	2-Chloroethylvinyl Ether
Sample ID	Sampled Date										
DCW-1	3/18/2008	<25.0	<25.0	<2.5	<2.5	<2.5	<5.0	<2.5	<2.5	<5.0	<2.5
MW-1	3/19/2008	<25.0	<25.0	201	<2.5	<2.5	<5.0	<2.5	<2.5	<5.0	<2.5
NW-6	3/19/2008	<25.0	<25.0	<2.5	<2.5	<2.5	<5.0	<2.5	<2.5	<5.0	<2.5
NW-7	3/19/2008	<25.0	<25.0	<2.5	<2.5	<2.5	<5.0	<2.5	<2.5	<5.0	<2.5
NW-8	3/17/2008	<50.0	<50.0	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<10.0	<5.0
NW-9	3/17/2008	<50.0	<50.0	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<10.0	<5.0
NW-10	3/17/2008	<50.0	<50.0	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<10.0	<5.0
WSW-1	3/17/2008	<50.0	<50.0	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<10.0	<5.0
2L Standard, ppb →		N/A	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
GCL, ppb →		N/A	N/A	5000	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Bold values exceed 2 Standard Concentrations.

No values exceed GCL Standard Concentrations.

Highlighted values indicated a result above Reporting Limits

CSA Table No. 14: VOC's & Svoc's Groundwater Analytical Results

Page 3

Analytical Method →		624	624	624	624	624	624	624	624	624	624
Contaminant of Concern →		Chloroform	Chloromethane	Dibromochloromethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,10Dichloroethane	1,2-Dichloroethane	1,1Dichloroethene	Trans-1,2-dichloroethene
Sample ID	Sampled Date										
DCW-1	3/18/2008	<5.0	<5.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
MW-1	3/19/2008	<5.0	<5.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
NW-6	3/19/2008	<5.0	<5.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
NW-7	3/19/2008	<5.0	<5.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
NW-8	3/17/2008	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
NW-9	3/17/2008	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
NW-10	3/17/2008	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
WSW-1	3/17/2008	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2L Standard, ppb →		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
GCL, ppb →		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Bold values exceed 2 Standard Concentrations.

No values exceed GCL Standard Concentrations.

Highlighted values indicated a result above Reporting Limits

CSA Table No. 14: VOC's & Svoc's Groundwater Analytical Results

Page 4

Analytical Method →		624	624	624	624	624	624	624	624	624	624
Contaminant of Concern →		1,2-Dichloropropane	Cis-1,3-dichloropropane	Trans-1,3-dichloropropane	Ethylbenzene	Methylene Chloride	1,1,2,2-Tetrachloroethane	Tetrachloroethene	Toluene	1,1,1-Trichloroethane	1,1,2-Trichloroethane
Sample ID	Sampled Date										
DCW-1	3/18/2008	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
MW-1	3/19/2008	<2.5	<2.5	<2.5	34	<6.0	<2.5	<2.5	12.1	<2.5	<2.5
NW-6	3/19/2008	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
NW-7	3/19/2008	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
NW-8	3/17/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
NW-9	3/17/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
NW-10	3/17/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
WSW-1	3/17/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2L Standard, ppb →		N/A	N/A	N/A	550	N/A	N/A	N/A	1000	N/A	N/A
GCL, ppb →		N/A	N/A	N/A	84500	N/A	N/A	N/A	25200	N/A	N/A

Bold values exceed 2 Standard Concentrations.

No values exceed GCL Standard Concentrations.

Highlighted values indicated a result above Reporting Limits

CSA Table No. 14: VOC's & Svoc's Groundwater Analytical Results

Page 5

Analytical Method →		624	624	624	624	625	625	625	625	625	625
Contaminant of Concern →		Trichloroethene	Trichlorofluoromethane	Vinyl Chloride	Xylene (total)	2,4,5-Trichlorophenol	2-Nitrophenol	4,6-Dinitro-o-cresol	Benzo(b)Fluoranthene	bis (2-Chloroethoxy) methane	p-Chloro-m-cresol
Sample ID	Sampled Date										
DCW-1	3/18/2008	<2.5	<2.5	<1.0	<5.0	<50.0	<50.0	<50.0	<10.0	<10.0	<50.0
MW-1	3/19/2008	<2.5	<2.5	<1.0	<5.0	<50.0	<50.0	<50.0	<10.0	<10.0	<50.0
NW-6	3/19/2008	<2.5	<2.5	<1.0	<5.0	<50.0	<50.0	<50.0	<10.0	<10.0	<50.0
NW-7	3/19/2008	<2.5	<2.5	<1.0	<5.0	<50.0	<50.0	<50.0	<10.0	<10.0	<50.0
NW-8	3/17/2008	<5.0	<5.0	<10.0	---	<50.0	<50.0	<50.0	<10.0	<10.0	<50.0
NW-9	3/17/2008	<5.0	<5.0	<10.0	---	<50.0	<50.0	<50.0	<10.0	<10.0	<50.0
NW-10	3/17/2008	<5.0	<5.0	<10.0	---	<50.0	<50.0	<50.0	<10.0	<10.0	<50.0
WSW-1	3/17/2008	<5.0	<5.0	<10.0	---	<50.0	<50.0	<50.0	<10.0	<10.0	<50.0
2L Standard, ppb →		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
GCL, ppb →		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Bold values exceed 2 Standard Concentrations.

No values exceed GCL Standard Concentrations.

Highlighted values indicated a result above Reporting Limits

CSA Table No. 14: VOC's & Svoc's Groundwater Analytical Results

Page 6

Analytical Method →		625	625	625	625	625	625	625	625	625	625
Contaminant of Concern →		2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	Pentachlorophenol	Phenol	1,2,4-Trichlorobenzene	4-Nitrophenol	1,2-Dichlorobenzene
Sample ID	Sampled Date										
DCW-1	3/18/2008	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<10.0	<50.0	<10.0
MW-1	3/19/2008	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<10.0	<50.0	<10.0
NW-6	3/19/2008	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<10.0	<50.0	<10.0
NW-7	3/19/2008	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<10.0	<50.0	<10.0
NW-8	3/17/2008	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<10.0	<50.0	<10.0
NW-9	3/17/2008	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<10.0	<50.0	<10.0
NW-10	3/17/2008	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<10.0	<50.0	<10.0
WSW-1	3/17/2008	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<10.0	<50.0	<10.0
2L Standard, ppb →		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
GCL, ppb →		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Bold values exceed 2 Standard Concentrations.

No values exceed GCL Standard Concentrations.

Highlighted values indicated a result above Reporting Limits

CSA Table No. 14: VOC's & Svoc's Groundwater Analytical Results

Page 7

Analytical Method →		625	625	625	625	625	625	625	625	625	625
Contaminant of Concern →		1,2-Diphenylhydrazine	1,3-Dichlorobenzene	1,4-Dichlorobenzene	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Chloronaphthalene	3,3'-Dichlorobenzidine	4-Bromophenyl phenyl ether	4-Chlorophenyl phenyl ether	Acenaphthene
Sample ID	Sampled Date										
DCW-1	3/18/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<50.0	<10.0	<10.0	<10.0
MW-1	3/19/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<50.0	<10.0	<10.0	<10.0
NW-6	3/19/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<50.0	<10.0	<10.0	<10.0
NW-7	3/19/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<50.0	<10.0	<10.0	<10.0
NW-8	3/17/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<50.0	<10.0	<10.0	<10.0
NW-9	3/17/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<50.0	<10.0	<10.0	<10.0
NW-10	3/17/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<50.0	<10.0	<10.0	<10.0
WSW-1	3/17/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<50.0	<10.0	<10.0	<10.0
2L Standard, ppb →		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
GCL, ppb →		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Bold values exceed 2 Standard Concentrations.

No values exceed GCL Standard Concentrations.

Highlighted values indicated a result above Reporting Limits

CSA Table No. 14: VOC's & Svoc's Groundwater Analytical Results

Page 8

Analytical Method →		625	625	625	625	625	625	625	625	625	625
Contaminant of Concern →		Acenaphthylene	Anthracene	Butyl benzyl phthalate	Benzo (a) anthracene	Benzo (a) pyrene	Benzidine	Benzo (k) Fluoranthene	bis (2-Chloroethyl) ether	bis (2-Chloroisopropyl) ether	bis (2-Ethylhexyl) phthalate
Sample ID	Sampled Date										
DCW-1	3/18/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<50.0	<10.0	<10.0	<10.0	100
MW-1	3/19/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<50.0	<10.0	<10.0	<10.0	<10.0
NW-6	3/19/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<50.0	<10.0	<10.0	<10.0	100
NW-7	3/19/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<50.0	<10.0	<10.0	<10.0	<10.0
NW-8	3/17/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<50.0	<10.0	<10.0	<10.0	<10.0
NW-9	3/17/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<50.0	<10.0	<10.0	<10.0	<10.0
NW-10	3/17/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<50.0	<10.0	<10.0	<10.0	<10.0
WSW-1	3/17/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<50.0	<10.0	<10.0	<10.0	<10.0
2L Standard, ppb →		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.5
GCL, ppb →		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2500

Bold values exceed 2 Standard Concentrations.

No values exceed GCL Standard Concentrations.

Highlighted values indicated a result above Reporting Limits

CSA Table No. 14: VOC's & Svoc's Groundwater Analytical Results

Page 9

Analytical Method →		625	625	625	625	625	625	625	625	625	625
Contaminant of Concern →		Benzo (ghi) perylene	Chrysene	Dibenzo (a,h) anthracene	Diethyl phthalate	Dimethyl Phthalate	Di-n-butyl phthalate	Di-n-octyl phthalate	Fluoranthene	Fluorene	Hexachlorobutadiene
Sample ID	Sampled Date										
DCW-1	3/18/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
MW-1	3/19/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
NW-6	3/19/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
NW-7	3/19/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
NW-8	3/17/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
NW-9	3/17/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
NW-10	3/17/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
WSW-1	3/17/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
2L Standard, ppb →		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
GCL, ppb →		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Bold values exceed 2 Standard Concentrations.

No values exceed GCL Standard Concentrations.

Highlighted values indicated a result above Reporting Limits

CSA Table No. 14: VOC's & Svoc's Groundwater Analytical Results

Page 10

Analytical Method →		625	625	625	625	625	625	625	625	625	625	625
Contaminant of Concern →		Hexachlorobenzene	Hexachloromethane	Indeno (1,2,3-cd) pyrene	Isophorone	Naphthalene	N-Nitrosodimethylamine	N-Nitrosodiphenylamine	N-Nitrosodi-n-propylamine	Nitrobenzene	Phenanthrene	Pyrene
Sample ID	Sampled Date											
DCW-1	3/18/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
MW-1	3/19/2008	<10.0	<10.0	<10.0	<10.0	200	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
NW-6	3/19/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
NW-7	3/19/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
NW-8	3/17/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
NW-9	3/17/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
NW-10	3/17/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
WSW-1	3/17/2008	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
2L Standard, ppb →		N/A	N/A	N/A	N/A	21	N/A	N/A	N/A	N/A	N/A	N/A
GCL, ppb →		N/A	N/A	N/A	N/A	15500	N/A	N/A	N/A	N/A	N/A	N/A

Bold values exceed 2 Standard Concentrations.

No values exceed GCL Standard Concentrations.

Highlighted values indicated a result above Reporting Limits

ATTACHMENT B
Soil Disposal Certification

SOILWORKS, INC.12861 NC HWY. 96 NORTH
ZENESON, NC 27597PHONE (919) 366-1500
FAX (919) 365-6180

Soilworks, Inc., operating under the *State of North Carolina Contaminated Soil Disposal Permit # SRU600075*, hereby acknowledges the receipt of **264.19** tons of soil contaminated with petroleum hydrocarbons and will properly execute the disposal of this soil in the prescribed manner set forth by the *North Carolina Department of Environment and Natural Resources, Division of Waste Management*, and in accordance with the requirements of *SRU600075*.

Company: E. W. Williams Construction Co.
8200 Fayetteville Road
Raleigh, NC 27603

Generator: E. W. Williams Construction Co.
8200 Fayetteville Road
Raleigh, NC 27603

Transporter: E. W. Williams Construction Co.
8200 Fayetteville Road
Raleigh, NC 27603

Date(s) Received: April 26-May 14, 2004

Soilworks, Inc.

By:

ATTACHMENT C:
Boring Logs and Well Construction Records

CLIENT: EW Williams Construction BORING NO.: NW-1 DATE: 11/20/03
 PROJECT NAME: EW Williams Construction Facility JOB NO.: _____
 PROJECT LOCATION: 8200 Fayetteville Road, Raleigh, NC STATION: _____
 BORING METHOD: 4 1/2 HSA FOREMAN: Leo Charboneau
 ROCK CORE DIA.: _____ INSPECTOR: Chris Mason
 SHELBY TUBE O.D.: _____

DEPTH (ft)	DESCRIPTION & REMARKS	STRATUM DEPTH, ft.	SAMPLE NUMBER	**SPT		*OVN, PPM	MOISTURE CONTENT, %	CALIBRATED PENETROMETER TSF	WELL DIAGRAM
	SURFACE ELEVATION: _____			BLOWS/6 in.	RECOVERY %				
	Light brown silty CLAY (CL), moist	2.0							
5	Reddish brown sandy silty CLAY (CL), moist	7.0							
	Black and brown very micaceous silty CLAY (CL), moist	9.0							
10	Light reddish brown silty CLAY (CL), very moist	14.0	1	9-26 33-36					
15	Light brown to tan silty coarse SAND (SM), Wet	20.0							
20	Boaring Terminated @ 20'								<p>Well Legend</p> <ul style="list-style-type: none"> -Bentonite -Cement Grout -Sand -2" Diameter No. 10 Screen, Schedule 40 PVC -2" Diameter PVC Solid Pipe
25									
30									
35									

BORING METHOD

HSA - HOLLOW STEM AUGER
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 MD - MUD DRILLING
 RC - ROCK CORING

*ORGANIC VAPOR METER,
 PARTS PER MILLION

**STANDARD PENETRATION TEST

GROUND WATER

NOTED ON RODS _____ FT. AFTER _____ HRS. _____ FT.
 AT COMPLETION _____ FT. AFTER _____ HRS. _____ FT.
 AFTER _____ HRS. _____ FT. AFTER _____ HRS. _____ FT.

CLIENT: EW Williams Construction BORING NO.: NW-2 DATE: 11/20/03
 PROJECT NAME: EW Williams Construction Facility JOB NO.: _____
 PROJECT LOCATION: 8200 Fayetteville Road, Raleigh, NC STATION: _____
 BORING METHOD: 4 1/2 HSA FOREMAN: Leo Charboneau
 ROCK CORE DIA.: _____ INSPECTOR: Chris Mason
 SHELBY TUBE O.D.: _____

DEPTH (ft)	DESCRIPTION & REMARKS	STRATUM DEPTH, ft.	SAMPLE NUMBER	**SPT		*OVM, PPM	MOISTURE CONTENT, %	CALIBRATED PENETROMETER TSF	WELL DIAGRAM
	SURFACE ELEVATION: _____			BLOWS/6 in.	RECOVERY %				
	Light brown silty CLAY (CL), moist (Fill)	4.0							
5	Reddish brown sandy silty CLAY (CL), moist	14.0							
15	Light brown to tan silty coarse SAND (SM), Wet	20.0							
20	Boring Terminated @ 20'								
25									<p>Well Legend</p> <ul style="list-style-type: none"> -Bentonite -Cement Grout -Sand -2" Diameter No. 10 Screen, Schedule 40 PVC -2" Diameter PVC Solid Pipe
30									
35									

BORING METHOD

HSA - HOLLOW STEM AUGER
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 MD - MUD DRILLING
 RC - ROCK CORING

*ORGANIC VAPOR METER,
 PARTS PER MILLION

**STANDARD PENETRATION TEST

GROUND WATER

NOTED ON RODS _____ FT. AFTER _____ HRS. _____ FT.
 AT COMPLETION _____ FT. AFTER _____ HRS. _____ FT.
 AFTER _____ HRS. _____ FT. AFTER _____ HRS. _____ FT.

CLIENT: EW Williams Construction BORING NO.: NW-3 DATE: 11/20/03
 PROJECT NAME: EW Williams Construction Facility JOB NO.: _____
 PROJECT LOCATION: 8200 Fayetteville Road, Raleigh, NC STATION: _____
 BORING METHOD: 4 1/2 HSA FOREMAN: Leo Charboneau
 ROCK CORE DIA.: _____ INSPECTOR: Chris Mason
 SHELBY TUBE O.D.: _____

DEPTH (ft)	DESCRIPTION & REMARKS	STRATUM DEPTH, ft.	SAMPLE NUMBER	**SPT		*OVM, PPM	MOISTURE CONTENT, %	CALIBRATED PENETROMETER TSF	WELL DIAGRAM
	SURFACE ELEVATION: _____			BLOWS/6 in.	RECOVERY %				
	Light brown micaceous silty CLAY (CL), moist (Fill)	3.0							
5	Reddish brown micaceous silty CLAY (CL), Moist	6.0							
10	Light brown to tan silty coarse SAND (SM), Wet	15.0							
15	Booring Terminated @ 15'								
20									<p>Well Legend</p> <ul style="list-style-type: none"> -Bentonite -Cement Grout -Sand -2" Diameter No. 10 Screen, Schedule 40 PVC -2" Diameter PVC Solid Pipe
25									
30									
35									

BORING METHOD

HSA - HOLLOW STEM AUGER
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 MD - MUD DRILLING
 RC - ROCK CORING

*ORGANIC VAPOR METER,
 PARTS PER MILLION

**STANDARD PENETRATION TEST






GROUND WATER

NOTED ON RODS _____ FT. AFTER _____ HRS. _____ FT.
 AT COMPLETION _____ FT. AFTER _____ HRS. _____ FT.
 AFTER _____ HRS. _____ FT. AFTER _____ HRS. _____ FT.

CLIENT: EW Willams Construction BORING NO.: NW-4 DATE: 11/20/03
 PROJECT NAME: EW Williams Construction Facility JOB NO.: _____
 PROJECT LOCATION: 8200 Fayetteville Road, Raleigh, NC STATION: _____
 BORING METHOD: 4 1/2 HSA FOREMAN: Leo Charboneau
 ROCK CORE DIA.: _____ INSPECTOR: Chris Mason
 SHELBY TUBE O.D.: _____

DEPTH (ft)	DESCRIPTION & REMARKS	STRATUM DEPTH, ft.	SAMPLE NUMBER	**SPT		*OVM, PPM	MOISTURE CONTENT, %	CALIBRATED PENETROMETER TSF	WELL DIAGRAM
				BLOWS/6 in.	RECOVERY %				
	SURFACE ELEVATION: _____								
	Asphalt Stone	2.0							
5	Light brown and black silty CLAY (CL), Moist	6.0							
10	Reddish brown silty CLAY (CL), Moist	14.0							
15	Light brown to tan silty coarse SAND (SM), Wet	20.0							
20	Boaring Terminated @ 20'								
25									
30									
35									

Well Legend

-  -Bentonite
-  -Cement Grout
-  -Sand
-  -2" Diameter No. 10 Screen, Schedule 40 PVC
-  -2" Diameter PVC Solid Pipe

BORING METHOD

HSA - HOLLOW STEM AUGER
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 MD - MUD DRILLING
 RC - ROCK CORING

*ORGANIC VAPOR METER,
PARTS PER MILLION

**STANDARD PENETRATION TEST

GROUND WATER

▽ NOTED ON RODS _____ FT. ▽ AFTER _____ HRS. _____ FT.
 ▽ AT COMPLETION _____ FT. ▽ AFTER _____ HRS. _____ FT.
 ▽ AFTER _____ HRS. _____ FT. ▽ AFTER _____ HRS. _____ FT.

CLIENT: EW Williams Construction BORING NO.: NW- 5 DATE: 5/4/06
 PROJECT NAME: EW Williams Construction Facility JOB NO.: _____
 PROJECT LOCATION: 8200 Fayetteville Road, Raleigh, NC STATION: _____
 BORING METHOD: 4 1/2 HSA FOREMAN: Tony Schuster
 ROCK CORE DIA.: _____ INSPECTOR: Courtland Amerson
 SHELBY TUBE O.D.: _____

DEPTH (ft)	DESCRIPTION & REMARKS	STRATUM DEPTH, ft.	SAMPLE NUMBER	**SPT		*OVN, PPM	MOISTURE CONTENT, %	CALIBRATED PENETROMETER TSF	WELL DIAGRAM
	SURFACE ELEVATION: _____			BLOWS/6 in.	RECOVERY %				
	Abc Stone	1.0							
5	Soil intermixed with Construction Debris								
10									
15	Tan and white clayey SAND (SC), wet (Possible Fill)	14.0							
20		20.0							<p>Well Legend</p> <ul style="list-style-type: none"> -Bentonite -Cement Grout -Sand -2" Diameter No.10 Screen, Schedule 40 PVC -2" Diameter PVC Solid Pipe
25	Boaring Terminated @ 20'								
30									
35									

BORING METHOD

HSA - HOLLOW STEM AUGER
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 MD - MUD DRILLING
 RC - ROCK CORING

*ORGANIC VAPOR METER,
 PARTS PER MILLION

**STANDARD PENETRATION TEST

GROUND WATER

NOTED ON RODS _____ FT. AFTER _____ HRS. _____ FT.
 AT COMPLETION _____ FT. AFTER _____ HRS. _____ FT.
 AFTER _____ HRS. _____ FT. AFTER _____ HRS. _____ FT.

CLIENT: EW Williams Construction BORING NO.: NW-6 DATE: 5/4/06
 PROJECT NAME: EW Williams Construction Facility JOB NO.: _____
 PROJECT LOCATION: 8200 Fayetteville Road, Raleigh, NC STATION: _____
 BORING METHOD: 4 1/2 HSA FOREMAN: Tony Schuster
 ROCK CORE DIA.: _____ INSPECTOR: Courtland Amerson
 SHELBY TUBE O.D.: _____

DEPTH (ft)	DESCRIPTION & REMARKS	STRATUM DEPTH, ft.	SAMPLE NUMBER	**SPT		*OVM, PPM	MOISTURE CONTENT, %	CALIBRATED PENETROMETER TSF	WELL DIAGRAM
	SURFACE ELEVATION: _____			BLOWS/6 in.	RECOVERY %				
	Abc Stone base	1.0							
5	Soil intermixed with Construction Debris								
10		12.0							
15	White silty SAND (SM), moist (Possible Fill)	15.0							
20	Black Silty SAND, (SM) very moist	20.0							
25	Boaring Terminated @ 20'								<p>Well Legend</p> <ul style="list-style-type: none"> -Bentonite -Cement Grout -Sand -2" Diameter No.10 Screen, Schedule 40 PVC -2" Diameter PVC Solid Pipe
30									
35									

BORING METHOD

HSA - HOLLOW STEM AUGER
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 MD - MUD DRILLING
 RC - ROCK CORING

*ORGANIC VAPOR METER,
 PARTS PER MILLION

**STANDARD PENETRATION TEST

GROUND WATER

NOTED ON RODS _____ FT. AFTER _____ HRS. _____ FT.
 AT COMPLETION _____ FT. AFTER _____ HRS. _____ FT.
 AFTER _____ HRS. _____ FT. AFTER _____ HRS. _____ FT.

CLIENT: EW Williams ConstructionBORING NO.: NW-7 DATE: 5/4/06PROJECT NAME: EW Williams Construction Facility

JOB NO.: _____

PROJECT LOCATION: 8200 Fayetteville Road, Raleigh, NC

STATION: _____

BORING METHOD: 4 1/2 HSAFOREMAN: Tony Schuster






ROCK CORE DIA.: _____

INSPECTOR: Courtland Amerson

SHELBY TUBE O.D.: _____

DEPTH (ft)	DESCRIPTION & REMARKS	STRATUM DEPTH, ft.	SAMPLE NUMBER	**SPT		*OVM, PPM	MOISTURE CONTENT, %	CALIBRATED PENETROMETER PSF	WELL DIAGRAM
				BLOWS/6 in.	RECOVERY %				
	SURFACE ELEVATION: _____								
	Abc Stone	1.0							
5	Soil intermixed with Construction Debris								
10									
		12.0							
15	Tan slightly SAND (SP/SM), wet (Possible Fill)								
20		20.0							
	Booring Terminated @ 20'								
25									
30									
35									

Well Legend

-  -Bentonite
-  -Cement Grout
-  -Sand
-  -2" Diameter No.10 Screen, Schedule 40 PVC
-  -2" Diameter PVC Solid Pipe

BORING METHOD

HSA - HOLLOW STEM AUGER
CFA - CONTINUOUS FLIGHT AUGER
DC - DRIVEN CASING
MD - MUD DRILLING
RC - ROCK CORING

*ORGANIC VAPOR METER,
PARTS PER MILLION

**STANDARD PENETRATION TEST

GROUND WATER

▽ NOTED ON RODS _____ FT.	▼ AFTER _____ HRS. _____ FT.
▽ AT COMPLETION _____ FT.	▼ AFTER _____ HRS. _____ FT.
▼ AFTER _____ HRS. _____ FT.	▼ AFTER _____ HRS. _____ FT.

CLIENT: EW Williams BORING NO.: NW-8 DATE: 3/14/08
 PROJECT NAME: EW Williams JOB NO.: N/A
 PROJECT LOCATION: 8200 Fayetteville Road, Raleigh, NC STATION: N/A
 BORING METHOD: 4 1/4 HSA, Split Spoon Sampling FOREMAN: Parratt-Wolf
 ROCK CORE DIA.: N/A INSPECTOR: Chris Mason
 SHELBY TUBE O.D.: N/A

DEPTH (ft)	DESCRIPTION & REMARKS	STRATUM DEPTH, ft.	SAMPLE NUMBER	**SPT		*OVM, PPM	MOISTURE CONTENT, %	CALIBRATED PENETROMETER TSF	WELL DIAGRAM
				BLOWS/6 in.	RECOVERY %				
	SURFACE ELEVATION: _____								
	Topsoil								
		2.0		2.0					
	Black clayey SAND (SC), wet		SS NW-8	3.5					
		6.5							
	White and gray mottled with yellow clayey SAND (SC), wet								
		13.0							
	Boring Terminated @ 13'								

BORING METHOD

HSA - HOLLOW STEM AUGER
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 MD - MUD DRILLING
 RC - ROCK CORING

*ORGANIC VAPOR METER,
PARTS PER MILLION

**STANDARD PENETRATION TEST

GROUND WATER

NOTED ON RODS _____ FT. AFTER _____ HRS. _____ FT.
 AT COMPLETION _____ FT. AFTER _____ HRS. _____ FT.
 AFTER _____ HRS. _____ FT. AFTER _____ HRS. _____ FT.

CLIENT: EW Williams BORING NO.: NW-9 DATE: 3/14/08
 PROJECT NAME: EW Williams JOB NO.: N/A
 PROJECT LOCATION: 8200 Fayetteville Road, Raleigh, NC STATION: N/A
 BORING METHOD: 4 1/4 HSA, Split Spoon Sampling FOREMAN: Parratt-Wolf
 ROCK CORE DIA.: N/A INSPECTOR: Chris Mason
 SHELBY TUBE O.D.: N/A

DEPTH (ft)	DESCRIPTION & REMARKS	STRATUM DEPTH, ft.	SAMPLE NUMBER	**SPT		*OVM, PPM	MOISTURE CONTENT, %	CALIBRATED PENETROMETER TSF	WELL DIAGRAM
				BLOWS/6 in.	RECOVERY %				
	SURFACE ELEVATION: _____								
	Reddish brown sandy CLAY (CL) (Fill)								
		3.0							
5	Black clayey SAND (SC), wet (Some organic wood chips after 5')		SS NW-9	4.0					
		6.0		5.5					
10	White and gray mottled with tan clayey SAND (SC), wet								
		13.0							
15	Boring Terminated @ 13'								Well Legend -Bentonite -Cement Grout -Sand -2" Diameter No. 10 Screen, Schedule 40 PVC -2" Diameter PVC Solid Pipe

BORING METHOD

HSA - HOLLOW STEM AUGER
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 MD - MUD DRILLING
 RC - ROCK CORING

*ORGANIC VAPOR METER,
 PARTS PER MILLION

**STANDARD PENETRATION TEST

GROUND WATER

NOTED ON RODS _____ FT. AFTER _____ HRS. _____ FT.
 AT COMPLETION _____ FT. AFTER _____ HRS. _____ FT.
 AFTER _____ HRS. _____ FT. AFTER _____ HRS. _____ FT.

CLIENT: EW Williams BORING NO.: NW-10 DATE: 3/14/08
 PROJECT NAME: EW Williams JOB NO.: N/A
 PROJECT LOCATION: 8200 Fayetteville Road, Raleigh, NC STATION: N/A
 BORING METHOD: 4 1/4 HSA, Split Spoon Sampling FOREMAN: Parratt-Wolf
 ROCK CORE DIA.: N/A INSPECTOR: Chris Mason
 SHELBY TUBE O.D.: N/A

DEPTH (ft)	DESCRIPTION & REMARKS	STRATUM DEPTH, ft.	SAMPLE NUMBER	**SPT		*OVM, PPM	MOISTURE CONTENT, %	CALIBRATED PENETROMETER TSF	WELL DIAGRAM
				BLOWS/6 in.	RECOVERY %				
	SURFACE ELEVATION: _____								
	Reddish brown sandy CLAY (CL) (Fill)	2.0							
5	Reddish brown and tan clayey SAND (SC) (Mixing with some pebbles after 5')								
10			SS NW-10	8.0 9.5					
15	(larger pebbles increased drilling resistance and wet after 10')								
20		20.0							
25	Booring Terminated @ 20'								
30									
35									

Well Legend

- Bentonite
- Cement Grout
- Sand
- 2" Diameter No.10 Screen, Schedule 40 PVC
- 2" Diameter PVC Solid Pipe

BORING METHOD

HSA - HOLLOW STEM AUGER
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 MD - MUD DRILLING
 RC - ROCK CORING

*ORGANIC VAPOR METER,
 PARTS PER MILLION

**STANDARD PENETRATION TEST

GROUND WATER

NOTED ON RODS _____ FT. AFTER _____ HRS. _____ FT.
 AT COMPLETION _____ FT. AFTER _____ HRS. _____ FT.
 AFTER _____ HRS. _____ FT. AFTER _____ HRS. _____ FT.

CLIENT: EW Williams BORING NO.: DCW-1 DATE: 3/14/08
 PROJECT NAME: EW Williams JOB NO.: N/A
 PROJECT LOCATION: 8200 Fayetteville Road, Raleigh, NC STATION: N/A
 BORING METHOD: 4 1/4 HSA, Split Spoon Sampling FOREMAN: Parratt-Wolf
 ROCK CORE DIA.: N/A INSPECTOR: Chris Mason
 SHELBY TUBE O.D.: N/A

DEPTH (ft)	DESCRIPTION & REMARKS	STRATUM DEPTH, ft.	SAMPLE NUMBER	**SPT		*OVM, PPM	MOISTURE CONTENT, %	CALIBRATED PENETROMETER TSF	WELL DIAGRAM
				BLOWS/6 in.	RECOVERY %				
	SURFACE ELEVATION: _____								
	Topsoil	2.0							
	Black clayey SAND (SC), wet	6.5							
10	White and gray mottled with with yellow clayey SAND (SC), wet								
20									
30									
40									
47	Weathered Rock								
50									
		56							
	Boring Terminated @ 56'								
									Well Legend -Bentonite -Cement Grout -Sand -2" Diameter No. 10 Screen, Schedule 40 PVC -2" Diameter PVC Solid Pipe

BORING METHOD

HSA - HOLLOW STEM AUGER
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 MD - MUD DRILLING
 RC - ROCK CORING

*ORGANIC VAPOR METER,
 PARTS PER MILLION

**STANDARD PENETRATION TEST

GROUND WATER

NOTED ON RODS _____ FT. AFTER _____ HRS. _____ FT.
 AT COMPLETION _____ FT. AFTER _____ HRS. _____ FT.
 AFTER _____ HRS. _____ FT. AFTER _____ HRS. _____ FT.

CLIENT: EW Williams Construction BORING NO.: CT-1 through CT-9 DATE: 2/07/06
 PROJECT NAME: EW Williams Construction Facility JOB NO.: _____
 PROJECT LOCATION: 8200 Fayetteville Road, Raleigh, NC STATION: _____
 BORING METHOD: 3" hand auger FOREMAN: _____
 ROCK CORE DIA.: _____ INSPECTOR: Courtland Amerson
 SHELBY TUBE O.D.: _____

DEPTH (ft)	DESCRIPTION & REMARKS	STRATUM DEPTH, ft.	SAMPLE NUMBER	**SPT		*OVM, PPM	MOISTURE CONTENT, %	CALIBRATED PENETROMETER TSF	WELL DIAGRAM
				BLOWS/6 in.	RECOVERY %				
	SURFACE ELEVATION: _____								
	Topsoil	1.0							
5	Light brown silty CLAY (CL), moist					0			
						0			
						0			
		9.5				0			
10	Hand auger Terminated @ 9.5 ft.								
15									
20									
25									
30									
35									

BORING METHOD

HSA - HOLLOW STEM AUGER
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 MD - MUD DRILLING
 RC - ROCK CORING

*ORGANIC VAPOR METER,
 PARTS PER MILLION

**STANDARD PENETRATION TEST

GROUND WATER

▽ NOTED ON RODS _____ FT. ▼ AFTER _____ HRS. _____ FT.
 ▼ AT COMPLETION _____ FT. ▼ AFTER _____ HRS. _____ FT.
 ▼ AFTER _____ HRS. _____ FT. ▼ AFTER _____ HRS. _____ FT.

CLIENT: EW Williams BORING NO.: SB-1 DATE: 3/14/08
 PROJECT NAME: EW Williams JOB NO.: N/A
 PROJECT LOCATION: 8200 Fayetteville Road, Raleigh, NC STATION: N/A
 BORING METHOD: 4 1/4 HSA, Split Spoon Sampling FOREMAN: Parratt-Wolf
 ROCK CORE DIA.: N/A INSPECTOR: Chris Mason
 SHELBY TUBE O.D.: N/A

DEPTH (ft)	DESCRIPTION & REMARKS	STRATUM DEPTH, ft.	SAMPLE NUMBER	**SPT		*OVM, PPM	MOISTURE CONTENT, %	CALIBRATED PENETROMETER TSF	WELL DIAGRAM
				BLOWS/6 in.	RECOVERY %				
	SURFACE ELEVATION: _____								
5	Black and brown sandy CLAY (CL), (Fill) (Various wood, asphalt, and organic debris noted in Fill material)								
				8					
		9.5	SS SB-1 (infill)	9.5					
10	Reddish brown silty sandy CLAY (CL), wet								
15	Boring Terminated @ 14'								

BORING METHOD

HSA - HOLLOW STEM AUGER
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 MD - MUD DRILLING
 RC - ROCK CORING

*ORGANIC VAPOR METER,
 PARTS PER MILLION

**STANDARD PENETRATION TEST

GROUND WATER

▽ NOTED ON RODS _____ FT. ▼ AFTER _____ HRS. _____ FT.
 ▼ AT COMPLETION _____ FT. ▼ AFTER _____ HRS. _____ FT.
 ▼ AFTER _____ HRS. _____ FT. ▼ AFTER _____ HRS. _____ FT.

CLIENT: EW Williams BORING NO.: SB-2 DATE: 3/14/08
 PROJECT NAME: EW Williams JOB NO.: N/A
 PROJECT LOCATION: 8200 Fayetteville Road, Raleigh, NC STATION: N/A
 BORING METHOD: 4 1/4 HSA, Split Spoon Sampling FOREMAN: Parratt-Wolf
 ROCK CORE DIA.: N/A INSPECTOR: Chris Mason
 SHELBY TUBE O.D.: N/A

DEPTH (ft)	DESCRIPTION & REMARKS	STRATUM DEPTH, ft.	SAMPLE NUMBER	**SPT		*OVM, PPM	MOISTURE CONTENT, %	CALIBRATED PENETROMETER TSF	WELL DIAGRAM
				BLOWS/6 in.	RECOVERY %				
	SURFACE ELEVATION: _____								
5	Black and tan silty sandy CLAY (CL) (Fill) (asphalt debris noted after 5')								
			6						
			SB-2A						
			8						
	(wood debris noted after 8')								
10	Black clayey SAND (SC), moist	10.0		10					
			SB-2B						
		12.0		12					
15	Boring Terminated @ 14'								

BORING METHOD

HSA - HOLLOW STEM AUGER
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 MD - MUD DRILLING
 RC - ROCK CORING

*ORGANIC VAPOR METER,
 PARTS PER MILLION

**STANDARD PENETRATION TEST

GROUND WATER

▽ NOTED ON RODS _____ FT. ▼ AFTER _____ HRS. _____ FT.
 ▼ AT COMPLETION _____ FT. ▼ AFTER _____ HRS. _____ FT.
 ▼ AFTER _____ HRS. _____ FT. ▼ AFTER _____ HRS. _____ FT.

CLIENT: EW Williams BORING NO.: SB-3 DATE: 3/17/08
 PROJECT NAME: EW Williams JOB NO.: N/A
 PROJECT LOCATION: 8200 Fayetteville Road, Raleigh, NC STATION: N/A
 BORING METHOD: 4 1/4 HSA, Split Spoon Sampling FOREMAN: Parratt-Wolf
 ROCK CORE DIA.: N/A INSPECTOR: Chris Mason
 SHELBY TUBE O.D.: N/A

DEPTH (ft)	DESCRIPTION & REMARKS	STRATUM DEPTH, ft.	SAMPLE NUMBER	**SPT		*OVM, PPM	MOISTURE CONTENT, %	CALIBRATED PENETROMETER TSF	WELL DIAGRAM
				BLOWS/6 in.	RECOVERY %				
	SURFACE ELEVATION: _____								
5	Same as SB-2 (asphalt noted after 3')								
10			SS SB-3	8 10					
		12.0							
15	Reddish brown sandy CLAY (CL), wet								
	Boring Terminated @ 16'								

BORING METHOD

HSA - HOLLOW STEM AUGER
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 MD - MUD DRILLING
 RC - ROCK CORING

*ORGANIC VAPOR METER,
 PARTS PER MILLION

**STANDARD PENETRATION TEST

GROUND WATER

▽ NOTED ON RODS _____ FT. ▼ AFTER _____ HRS. _____ FT.
 ▼ AT COMPLETION _____ FT. ▼ AFTER _____ HRS. _____ FT.
 ▼ AFTER _____ HRS. _____ FT. ▼ AFTER _____ HRS. _____ FT.

CLIENT: EW Williams BORING NO.: SB-4 DATE: 3/18/08
 PROJECT NAME: EW Williams JOB NO.: N/A
 PROJECT LOCATION: 8200 Fayetteville Road, Raleigh, NC STATION: N/A
 BORING METHOD: 4 1/4 HSA, Split Spoon Sampling FOREMAN: Parratt-Wolf
 ROCK CORE DIA.: N/A INSPECTOR: Chris Mason
 SHELBY TUBE O.D.: N/A

DEPTH (ft)	DESCRIPTION & REMARKS	STRATUM DEPTH, ft.	SAMPLE NUMBER	**SPT		*OVM, PPM	MOISTURE CONTENT, %	CALIBRATED PENETROMETER TSF	WELL DIAGRAM
				BLOWS/6 in.	RECOVERY %				
	SURFACE ELEVATION: _____								
5	Black and gray SAND (SC), (Fill) (asphalt and debris noted after 3')								
			SB-4A	6'					
				7'					
10	(debris noted after 7')								
			SB-4B	12'					
				13.5'					
15	Boring Terminated @ 14								

BORING METHOD

HSA - HOLLOW STEM AUGER
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 MD - MUD DRILLING
 RC - ROCK CORING

*ORGANIC VAPOR METER,
 PARTS PER MILLION

**STANDARD PENETRATION TEST

GROUND WATER

▽ NOTED ON RODS _____ FT. ▼ AFTER _____ HRS. _____ FT.
 ▼ AT COMPLETION _____ FT. ▼ AFTER _____ HRS. _____ FT.
 ▼ AFTER _____ HRS. _____ FT. ▼ AFTER _____ HRS. _____ FT.

CLIENT: EW Williams BORING NO.: SB-5 DATE: 3/18/08
 PROJECT NAME: EW Williams JOB NO.: N/A
 PROJECT LOCATION: 8200 Fayetteville Road, Raleigh, NC STATION: N/A
 BORING METHOD: 4 1/4 HSA, Split Spoon Sampling FOREMAN: Parratt-Wolf
 ROCK CORE DIA.: N/A INSPECTOR: Chris Mason
 SHELBY TUBE O.D.: N/A

DEPTH (ft)	DESCRIPTION & REMARKS	STRATUM DEPTH, ft.	SAMPLE NUMBER	**SPT		*OVM, PPM	MOISTURE CONTENT, %	CALIBRATED PENETROMETER TSF	WELL DIAGRAM
				BLOWS/6 in.	RECOVERY %				
	SURFACE ELEVATION: _____								
5	Black and reddish brown sandy CLAY (CL), (Fill) (possible petroleum odors and stain @ 2' BGS)			3'					
			SB-5A	4'					
10	(wood debris noted after 8')								
		12.0		12'					
	Reddish brown silty sandy CLAY (CL), moist		SB-5B	14'					
15	Boring Terminated @ 14'								

BORING METHOD

HSA - HOLLOW STEM AUGER
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 MD - MUD DRILLING
 RC - ROCK CORING

*ORGANIC VAPOR METER,
 PARTS PER MILLION

**STANDARD PENETRATION TEST

GROUND WATER

▽ NOTED ON RODS _____ FT. ▽ AFTER _____ HRS. _____ FT.
 ▽ AT COMPLETION _____ FT. ▽ AFTER _____ HRS. _____ FT.
 ▽ AFTER _____ HRS. _____ FT. ▽ AFTER _____ HRS. _____ FT.

CLIENT: EW Williams BORING NO.: SB-6 DATE: 3/18/08
 PROJECT NAME: EW Williams JOB NO.: N/A
 PROJECT LOCATION: 8200 Fayetteville Road, Raleigh, NC STATION: N/A
 BORING METHOD: 4 1/4 HSA FOREMAN: Parratt-Wolf
 ROCK CORE DIA.: N/A INSPECTOR: Chris Mason
 SHELBY TUBE O.D.: N/A

DEPTH (ft)	DESCRIPTION & REMARKS	STRATUM DEPTH, ft.	SAMPLE NUMBER	**SPT		*OVM, PPM	MOISTURE CONTENT, %	CALIBRATED PENETROMETER 1SF	WELL DIAGRAM
				BLOWS/6 in.	RECOVERY %				
	SURFACE ELEVATION: _____								
5	Black and reddish brown sandy CLAY (CL), (Fill) (possible petroleum odors and stain @ 2' BGS)		SB-5A	3' 4'					
10	(wood debris noted after 8')		SB-6	8' 9'					
15	Boring Terminated @ 12								

BORING METHOD

HSA - HOLLOW STEM AUGER
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 MD - MUD DRILLING
 RC - ROCK CORING

*ORGANIC VAPOR METER,
 PARTS PER MILLION

**STANDARD PENETRATION TEST

GROUND WATER

▽ NOTED ON RODS _____ FT. ▼ AFTER _____ HRS. _____ FT.
 ▼ AT COMPLETION _____ FT. ▼ AFTER _____ HRS. _____ FT.
 ▼ AFTER _____ HRS. _____ FT. ▼ AFTER _____ HRS. _____ FT.

CLIENT: EW Williams Construction BORING NO.: TP-1 DATE: 2/08/06
 PROJECT NAME: EW Williams Construction Facility JOB NO.: _____
 PROJECT LOCATION: 8200 Fayetteville Road, Raleigh, NC STATION: _____
 BORING METHOD: Track Hoe FOREMAN: _____
 ROCK CORE DIA.: _____ INSPECTOR: Courtland Amerson
 SHELBY TUBE O.D.: _____

DEPTH (ft)	DESCRIPTION & REMARKS	STRATUM DEPTH, ft	SAMPLE NUMBER	**SPT		*OVM, PPM	MOISTURE CONTENT, %	CALIBRATED PENETROMETER TSF	WELL DIAGRAM
	SURFACE ELEVATION: _____			BLOWS/6 in.	RECOVERY %				
	ABC Stone					0			
5	Soil Intermixed with asphalt, concrete, metal pipe, and PVC pipe	4.5				0			
10	Light brown silty CLAY (CL), Moist	10.5				0			
13.0	Test Pit Terminated @ 13.0 ft.	13.0							
15									
20									
25									
30									
35									

BORING METHOD

HSA - HOLLOW STEM AUGER
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 MD - MUD DRILLING
 RC - ROCK CORING

*ORGANIC VAPOR METER,
 PARTS PER MILLION

**STANDARD PENETRATION TEST

GROUND WATER

▽ NOTED ON RODS _____ FT. ▼ AFTER _____ HRS. _____ FT.
 ▼ AT COMPLETION _____ FT. ▼ AFTER _____ HRS. _____ FT.
 ▼ AFTER _____ HRS. _____ FT. ▼ AFTER _____ HRS. _____ FT.

CLIENT: EW Williams Construction BORING NO.: TP-2 DATE: 2/08/06
 PROJECT NAME: EW Williams Construction Facility JOB NO.: _____
 PROJECT LOCATION: 8200 Fayetteville Road, Raleigh, NC STATION: _____
 BORING METHOD: Track Hoe FOREMAN: _____
 ROCK CORE DIA.: _____ INSPECTOR: Courtland Amerson
 SHELBY TUBE O.D.: _____

DEPTH (ft)	DESCRIPTION & REMARKS	STRATUM DEPTH, ft.	SAMPLE NUMBER	**SPT		*OVM, PPM	MOISTURE CONTENT, %	CALIBRATED PENETROMETER TSP	WELL DIAGRAM
				BLOWS/6 in.	RECOVERY %				
	SURFACE ELEVATION: _____								
5	ABC Stone mixed with Rail Road Ties	5.5				0			
10	Soil Intermixed with asphalt, concrete, and railroad ties	11.5				5			
	Light brown and reddish-brown sandy CLAY (CL), Moist	14.0				9			
15	Test Pit Terminated @ 14.0 ft.								
20									
25									
30									
35									

BORING METHOD

HSA - HOLLOW STEM AUGER
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 MD - MUD DRILLING
 RC - ROCK CORING

*ORGANIC VAPOR METER,
 PARTS PER MILLION

**STANDARD PENETRATION TEST

GROUND WATER

▽ NOTED ON RODS _____ FT. ▼ AFTER _____ HRS. _____ FT.
 ▼ AT COMPLETION _____ FT. ▼ AFTER _____ HRS. _____ FT.
 ▼ AFTER _____ HRS. _____ FT. ▼ AFTER _____ HRS. _____ FT.

CLIENT: EW Williams Construction BORING NO.: TP-3 DATE: 2/08/06
 PROJECT NAME: EW Williams Construction Facility JOB NO.: _____
 PROJECT LOCATION: 8200 Fayetteville Road, Raleigh, NC STATION: _____
 BORING METHOD: Track Hoe FOREMAN: _____
 ROCK CORE DIA.: _____ INSPECTOR: Courtland Amerson
 SHELBY TUBE O.D.: _____

DEPTH (ft)	DESCRIPTION & REMARKS	STRATUM DEPTH, ft.	SAMPLE NUMBER	**SPT		*OVM, PPM	MOISTURE CONTENT, %	CALIBRATED PENETROMETER TSF	WELL DIAGRAM
	SURFACE ELEVATION: _____			BLOWS/6 in.	RECOVERY %				
5	ABC Stone mixed with Rail Road ties, concrete and boulders	5.5				5			
10	Soil Intermixed with asphalt, concrete, Boulders, and railroad ties	10.0				12			
	Light brown silty SAND (SM), wet (Possible Fill)	14.0				8			
15	Test Pit Terminated @ 14.0 ft.								
20									
25									
30									
35									

BORING METHOD

HSA - HOLLOW STEM AUGER
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 MD - MUD DRILLING
 RC - ROCK CORING

*ORGANIC VAPOR METER,
 PARTS PER MILLION

**STANDARD PENETRATION TEST

GROUND WATER

▽ NOTED ON RODS _____ FT. ▼ AFTER _____ HRS. _____ FT.
 ▼ AT COMPLETION _____ FT. ▼ AFTER _____ HRS. _____ FT.
 ▼ AFTER _____ HRS. _____ FT. ▼ AFTER _____ HRS. _____ FT.

CLIENT: EW Williams Construction BORING NO.: CT-1 through CT-9 DATE: 2/07/06
 PROJECT NAME: EW Williams Construction Facility JOB NO.: _____
 PROJECT LOCATION: 8200 Fayetteville Road, Raleigh, NC STATION: _____
 BORING METHOD: 3" hand auger FOREMAN: _____
 ROCK CORE DIA.: _____ INSPECTOR: Courtland Amerson
 SHELBY TUBE O.D.: _____

DEPTH (ft)	DESCRIPTION & REMARKS	STRATUM DEPTH, ft	SAMPLE NUMBER	**SPT		*OVM, PPM	MOISTURE CONTENT, %	CALIBRATED PENETROMETER TSF	WELL DIAGRAM
				BLOWS/6 in.	RECOVERY %				
	SURFACE ELEVATION: _____								
	Topsoil	1.0							
5	Light brown silty CLAY (CL), moist					0			
						0			
						0			
10		9.5				0			
	Hand auger Terminated @ 9.5 ft.								
15									
20									
25									
30									
35									

BORING METHOD

HSA - HOLLOW STEM AUGER
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 MD - MUD DRILLING
 RC - ROCK CORING

*ORGANIC VAPOR METER,
PARTS PER MILLION

**STANDARD PENETRATION TEST

GROUND WATER

▽ NOTED ON RODS _____ FT. ▽ AFTER _____ HRS. _____ FT.
 ▽ AT COMPLETION _____ FT. ▽ AFTER _____ HRS. _____ FT.
 ▽ AFTER _____ HRS. _____ FT. ▽ AFTER _____ HRS. _____ FT.

CLIENT: EW Williams Construction BORING NO.: TP-5 DATE: 2/08/06
 PROJECT NAME: EW Williams Construction Facility JOB NO.: _____
 PROJECT LOCATION: 8200 Fayetteville Road, Raleigh, NC STATION: _____
 BORING METHOD: Track Hoe FOREMAN: _____
 ROCK CORE DIA.: _____ INSPECTOR: Courtland Amerson
 SHELBY TUBE O.D.: _____

DEPTH (ft)	DESCRIPTION & REMARKS	STRATUM DEPTH, ft.	SAMPLE NUMBER	**SPT		*QV, PPM	MOISTURE CONTENT, %	CALIBRATED PENETROMETER TSF	WELL DIAGRAM
				BLOWS/6 in.	RECOVERY %				
	SURFACE ELEVATION: _____								
5	ABC Stone mixed with Rail spikes and rail, and concrete	5.0				0			
10	Soil Intermixed with asphalt, concrete, Boulders, railroad spikes and railroad ties					0			
15	Asphalt, concret, metal and PVC pipe A few 5 gal plastice buckets after 11'					0			
20	Light brown silty CLAY (CL) mixed with silty SAND (SM), wet (Possible Fill)	17.5 20.0				0			
25	Test Pit Terminated @ 20.0 ft.								
30									
35									

BORING METHOD

HSA - HOLLOW STEM AUGER
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 MD - MUD DRILLING
 RC - ROCK CORING

*ORGANIC VAPOR METER,
 PARTS PER MILLION

**STANDARD PENETRATION TEST

GROUND WATER

▽ NOTED ON RODS _____ FT. ▼ AFTER _____ HRS. _____ FT.
 ▼ AT COMPLETION _____ FT. ▼ AFTER _____ HRS. _____ FT.
 ▼ AFTER _____ HRS. _____ FT. ▼ AFTER _____ HRS. _____ FT.

CLIENT: EW Williams Construction BORING NO.: TP-6 DATE: 2/08/06
 PROJECT NAME: EW Williams Construction Facility JOB NO.: _____
 PROJECT LOCATION: 8200 Fayetteville Road, Raleigh, NC STATION: _____
 BORING METHOD: Track Hoe FOREMAN: _____
 ROCK CORE DIA.: _____ INSPECTOR: Courtland Amerson
 SHELBY TUBE O.D.: _____

DEPTH (ft)	DESCRIPTION & REMARKS	STRATUM DEPTH, ft.	SAMPLE NUMBER	**SPT		*OVM, PPM	MOISTURE CONTENT, %	CALIBRATED PENETROMETER TSF	WELL DIAGRAM
				BLOWS/6 in.	RECOVERY %				
	SURFACE ELEVATION: _____								
5	ABC Stone, trace of bolts	5.0				0			
10	Soil Intermixed with asphalt, concrete, Boulders, railroad spikes and railroad ties					0			
12.5		12.5				0			
15	Light brown silty CLAY (CL), moist	15.0							
15.0	Test Pit Terminated @ 15.0 ft.								
20									
25									
30									
35									

BORING METHOD

HSA - HOLLOW STEM AUGER
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 MD - MUD DRILLING
 RC - ROCK CORING

*ORGANIC VAPOR METER,
 PARTS PER MILLION

**STANDARD PENETRATION TEST

GROUND WATER

▽ NOTED ON RODS _____ FT. ▼ AFTER _____ HRS. _____ FT.
 ▼ AT COMPLETION _____ FT. ▼ AFTER _____ HRS. _____ FT.
 ▼ AFTER _____ HRS. _____ FT. ▼ AFTER _____ HRS. _____ FT.

CLIENT: EW Williams Construction BORING NO.: TP-7 DATE: 2/08/06
 PROJECT NAME: EW Williams Construction Facility JOB NO.: _____
 PROJECT LOCATION: 8200 Fayetteville Road, Raleigh, NC STATION: _____
 BORING METHOD: Track Hoe FOREMAN: _____
 ROCK CORE DIA.: _____ INSPECTOR: Courtland Amerson
 SHELBY TUBE O.D.: _____

DEPTH (ft)	DESCRIPTION & REMARKS	STRATUM DEPTH, ft.	SAMPLE NUMBER	**SPT		*OVM, PPM	MOISTURE CONTENT, %	CALIBRATED PENETROMETER TSF	WELL DIAGRAM
				BLOWS/6 in.	RECOVERY %				
	SURFACE ELEVATION: _____								
5	ABC Stone intermixed with concrete railroad ties, and PVC pipe	5.0				0			
10	Soil Intermixed with asphalt, concrete, Boulders, railroad spikes and railroad ties	10.0				0			
15	Light brown silty CLAY (CL) mixed with silty SAND (SM), wet (Possible Fill)	15.0				0			
20	Test Pit Terminated @ 15.0 ft.								
25									
30									
35									

BORING METHOD

HSA - HOLLOW STEM AUGER
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 MD - MUD DRILLING
 RC - ROCK CORING

*ORGANIC VAPOR METER,
 PARTS PER MILLION

**STANDARD PENETRATION TEST

GROUND WATER

▽ NOTED ON RODS _____ FT. ▼ AFTER _____ HRS. _____ FT.
 ▼ AT COMPLETION _____ FT. ▼ AFTER _____ HRS. _____ FT.
 ▼ AFTER _____ HRS. _____ FT. ▼ AFTER _____ HRS. _____ FT.

CLIENT: EW Williams Construction BORING NO.: TP-8 DATE: 2/08/06
 PROJECT NAME: EW Williams Construction Facility JOB NO.: _____
 PROJECT LOCATION: 8200 Fayetteville Road, Raleigh, NC STATION: _____
 BORING METHOD: Track Hoe FOREMAN: _____
 ROCK CORE DIA.: _____ INSPECTOR: Courtland Amerson
 SHELBY TUBE O.D.: _____

DEPTH (ft)	DESCRIPTION & REMARKS	STRATUM DEPTH, ft.	SAMPLE NUMBER	**SPT		*OVM, PPM	MOISTURE CONTENT, %	CALIBRATED PENETROMETER TSF	WELL DIAGRAM
	SURFACE ELEVATION: _____			BLOWS/6 in.	RECOVERY %				
	ABC Stone intermixed with concrete railroad ties, and PVC pipe	4.0				0			
5	Soil Intermixed with asphalt, concrete, Boulders, railroad spikes and railroad ties Concrete and PVC pipe					0			
10						0			
15		17.0				0			
20	Light brown silty CLAY (CL) mixed with silty SAND (SM), wet (Possible Fill)	20.0							
	Test Pit Terminated @ 20.0 ft.								
25									
30									
35									

BORING METHOD

HSA - HOLLOW STEM AUGER
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 MD - MUD DRILLING
 RC - ROCK CORING

*ORGANIC VAPOR METER,
 PARTS PER MILLION

**STANDARD PENETRATION TEST

GROUND WATER

▽ NOTED ON RODS _____ FT. ▼ AFTER _____ HRS. _____ FT.
 ▼ AT COMPLETION _____ FT. ▼ AFTER _____ HRS. _____ FT.
 ▼ AFTER _____ HRS. _____ FT. ▼ AFTER _____ HRS. _____ FT.

CLIENT: EW Williams Construction BORING NO.: TP-9 DATE: 2/08/06
 PROJECT NAME: EW Williams Construction Facility JOB NO.: _____
 PROJECT LOCATION: 8200 Fayetteville Road, Raleigh, NC STATION: _____
 BORING METHOD: Track Hoe FOREMAN: _____
 ROCK CORE DIA.: _____ INSPECTOR: Courtland Amerson
 SHELBY TUBE O.D.: _____

DEPTH (ft)	DESCRIPTION & REMARKS	STRATUM DEPTH, ft.	SAMPLE NUMBER	**SPT		*OVM, PPM	MOISTURE CONTENT, %	CALIBRATED PENETROMETER TSF	WELL DIAGRAM
				BLOWS/6 in.	RECOVERY %				
	SURFACE ELEVATION: _____								
	ABC Stone intermixed with concrete railroad ties, and PVC pipe	4.0				0			
5	Soil Intermixed with asphalt, concrete, Boulders, railroad spikes and railroad ties					0			
10	A few tires, clothing and rugs after 10'					0			
15		17.0				0			
20	Light brown silty CLAY (CL) mixed with silty SAND (SM), wet (Possible Fill)	20.0							
	Test Pit Terminated @ 20.0 ft.								
25									
30									
35									

BORING METHOD

HSA - HOLLOW STEM AUGER
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 MD - MUD DRILLING
 RC - ROCK CORING

*ORGANIC VAPOR METER,
 PARTS PER MILLION

**STANDARD PENETRATION TEST

GROUND WATER

▽ NOTED ON RODS _____ FT. ▼ AFTER _____ HRS. _____ FT.
 ▼ AT COMPLETION _____ FT. ▼ AFTER _____ HRS. _____ FT.
 ▼ AFTER _____ HRS. _____ FT. ▼ AFTER _____ HRS. _____ FT.

WELL CONSTRUCTION RECORD

North Carolina - Department of Environment and Natural Resources - Division of Water Quality - Groundwater Section

WELL CONTRACTOR (INDIVIDUAL) NAME (print) Leo H. Charbonneau, Jr. CERTIFICATION # 2845

WELL CONTRACTOR COMPANY NAME J & L DRILLING, INC. PHONE # (919) 989-8834

STATE WELL CONSTRUCTION PERMITS _____ ASSOCIATED WQ PERMITS _____
(if applicable) (if applicable)

1. WELL USE (Check Applicable Box): Residential ☐ Municipal/Public ☐ Industrial ☐ Agricultural ☐
Monitoring ☒ Recovery ☐ Heat Pump Water Injection ☐ Other ☐ If Other, List Use AW-1

2. WELL LOCATION:

Nearest Town: CARRIER County WAKE
8200 Fayetteville Rd
(Street Name, Number, Community, Subdivision, Lot No., Zip Code)

Mr. EW Williams

3. OWNER: Mr. Henry Sink
Address P.O. Box 1471
(Street or Route No.)
Raleigh NC 27602
City or Town State Zip Code

Area code- Phone number

4. DATE DRILLED 11-20/03

5. TOTAL DEPTH: 20.0'

6. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒

7. STATIC WATER LEVEL Below Top of Casing: 11.0 FT.
(Use "+" if Above Top of Casing)

8. TOP OF CASING IS 5 FT. Above Land Surface*
*Top of casing terminated at/or below land surface requires a variance in accordance with 15A NCAC 2C .0118.

9. YIELD (gpm): _____ METHOD OF TEST _____

10. WATER ZONES (depth): _____

11. DISINFECTION: Type _____ Amount _____

12. CASING: _____ Wall Thickness _____

From	To	Depth	Diameter	or Weight/Ft.	Material
From <u>5</u>	To <u>10.0</u>	Ft.	<u>2</u>	<u>Sch 40</u>	<u>PVC</u>
From _____	To _____	Ft.			
From _____	To _____	Ft.			

13. GROUT: _____ Material _____ Method _____

From	To	Depth	Material	Method
From <u>6.0</u>	To <u>8.0</u>	Ft.	<u>Portland</u>	<u>Grout</u>
From <u>15</u>	To <u>6.0</u>	Ft.	<u>Cement</u>	<u>Grout</u>

14. SCREEN: _____ Diameter _____ Slot Size _____ Material _____

From	To	Depth	Diameter	Slot Size	Material
From <u>10.0</u>	To <u>20.0</u>	Ft.	<u>2 in.</u>	<u>.10 in.</u>	<u>PVC</u>
From _____	To _____	Ft.			

15. SAND/GRAVEL PACK: _____

From	To	Depth	Size	Material
From <u>8.0</u>	To <u>20.0</u>	Ft.	<u>#2</u>	<u>SAND</u>
From _____	To _____	Ft.		

16. REMARKS: _____

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER

SIGNATURE OF PERSON CONSTRUCTING THE WELL

DATE

Submit the original to the Division of Water Quality, Groundwater Section, 1636 Mail Service Center - Raleigh, NC 27699-1636 Phone No. (919) 733-3221, within 30 days.

GW-1 REV. 07/2001

Topographic/Land setting
☐ Ridge ☐ Slope ☐ Valley ☒ Flat
(check appropriate box)
Latitude/longitude of well location

(degrees/minutes/seconds)
Latitude/longitude source: ☐ GPS ☐ Topographic map
(check box)

DEPTH
From To

0 - 20.0

DRILLING LOG

Formation Description

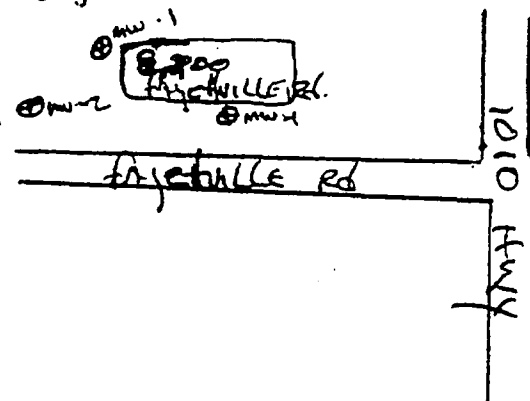
Reddish Brown
AND GRAY FINE
SANDY SILT

0 - 20

Change to Brown
- AND Yellow
FINE SILT
SANDY (Runny)

LOCATION SKETCH

Show direction and distance in miles from at least two State Roads or County Roads. Include the road numbers and common road names.



WELL CONSTRUCTION RECORD

North Carolina - Department of Environment and Natural Resources - Division of Water Quality - Groundwater Section

WELL CONTRACTOR (INDIVIDUAL) NAME Leo H. Charbonneau, Jr. CERTIFICATION # 2865

WELL CONTRACTOR COMPANY NAME J & L DRILLING INC. PHONE # (919) 989-8836

STATE WELL CONSTRUCTION PERMITS _____
(if applicable)

ASSOCIATED WQ PERMITS _____
(if applicable)

1. WELL USE (Check Applicable Box): Residential ☐ Municipal/Public ☐ Industrial ☐ Agricultural ☐
Monitoring ☒ Recovery ☐ Heat Pump Water Injection ☐ Other ☐ If Other, List Use NW-2

2. WELL LOCATION:

Nearest Town: CARRIER County WAKE

8200 Fayetteville Rd
(Street Name, Number, Community, Subdivision, Lot No., Zip Code)

Mr. EW Williams

3. OWNER: Mr. Henry Sink

Address P.O. Box 1471

Raleigh NC 27602
(City or Town State Zip Code)

Area code-Phone number

4. DATE DRILLED 1-20/03

5. TOTAL DEPTH: 20.0'

6. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒

7. STATIC WATER LEVEL Below Top of Casing: 12.5 FT.

(Use "+" if Above Top of Casing)

8. TOP OF CASING IS 5 FT. Above Land Surface*

*Top of casing terminated at or below land surface requires a variance in accordance with 15A NCAC 2C .0118.

9. YIELD (gpm): _____ METHOD OF TEST _____

10. WATER ZONES (depth): _____

11. DISINFECTION: Type _____ Amount _____

12. CASING: _____ Well Thickness _____

From	To	Depth	Diameter	or Weight/Ft.	Material
From <u>0.5</u>	To <u>10.0</u> Ft.	<u>2</u>	<u>SCH 40</u>	<u>PVC</u>	

From	To	Depth	Diameter	or Weight/Ft.	Material
From _____	To _____ Ft.	_____	_____	_____	_____

From	To	Depth	Diameter	or Weight/Ft.	Material
From _____	To _____ Ft.	_____	_____	_____	_____

13. GROUT: _____ Depth _____ Material _____ Method _____

From	To	Depth	Diameter	or Weight/Ft.	Material
From <u>10.0</u>	To <u>8.0</u> Ft.	<u>2</u>	<u>SCH 40</u>	<u>PVC</u>	

From	To	Depth	Diameter	or Weight/Ft.	Material
From <u>1.5</u>	To <u>6.0</u> Ft.	<u>2</u>	<u>SCH 40</u>	<u>PVC</u>	

14. SCREEN: _____ Depth _____ Diameter _____ Slot Size _____ Material _____

From	To	Depth	Diameter	or Weight/Ft.	Material
From <u>10.0</u>	To <u>20.0</u> Ft.	<u>2</u>	<u>SCH 40</u>	<u>PVC</u>	

From	To	Depth	Diameter	or Weight/Ft.	Material
From _____	To _____ Ft.	_____	_____	_____	_____

15. SAND/GRAVEL PACK: _____

From	To	Depth	Diameter	or Weight/Ft.	Material
From <u>8.0</u>	To <u>20.0</u> Ft.	<u>2</u>	<u>SCH 40</u>	<u>PVC</u>	

From	To	Depth	Diameter	or Weight/Ft.	Material
From _____	To _____ Ft.	_____	_____	_____	_____

16. REMARKS: _____

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER

SIGNATURE OF PERSON CONSTRUCTING THE WELL

DATE

Submit the original to the Division of Water Quality, Groundwater Section, 1636 Mail Service Center - Raleigh, NC 27609-1636 Phone No. (919) 733-3221, within 30 days.

GW-1 REV. 07/2001

Topographic/Land setting
☐ Ridge ☐ Slope ☐ Valley ☒ Flat
(check appropriate box)

Latitude/longitude of well location

(degrees/minutes/seconds)

Latitude/longitude source: ☐ GPS ☒ Topographic map
(check box)

DEPTH

From To

0 - 20.0

0 - 20

DRILLING LOG

Formation Description

Reddish Brown

AND GRAY FINE

SANDY SILT

Change to Brown

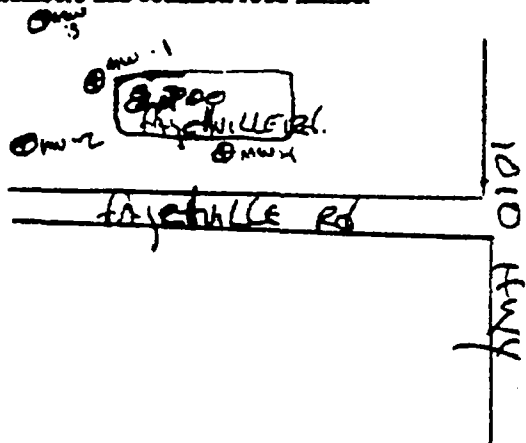
- FINE Yellow

FINE SILT

SANDY (Runny)

LOCATION SKETCH

Show direction and distance in miles from at least two State Roads or County Roads. Include the road numbers and common road names.



WELL CONSTRUCTION RECORD

North Carolina - Department of Environment and Natural Resources - Division of Water Quality - Groundwater Section

WELL CONTRACTOR (INDIVIDUAL) NAME (print) Leo H. Charbonneau, Jr. CERTIFICATION # 2865

WELL CONTRACTOR COMPANY NAME J & L DRILLING, INC. PHONE # (919) 989-8536

STATE WELL CONSTRUCTION PERMITS _____ ASSOCIATED WQ PERMITS _____
(if applicable) (if applicable)

1. WELL USE (Check Applicable Box): Residential ☐ Municipal/Public ☐ Industrial ☐ Agricultural ☐
Monitoring ☒ Recovery ☐ Heat Pump Water Injection ☐ Other ☐ If Other, List Use MW-3

2. WELL LOCATION:

Nearest Town: GARNER County WAKE
8200 FAIRHURVE RD.

(Street Name, Number, Community, Subdivision, Lot No., Zip Code)

Mr. E.W. Williams

3. OWNER: 40 Henry Sink
Address P.O. Box 1471

(Street or Route No.)

Raleigh NC 27602

City or Town State Zip Code

()

Area code- Phone number

4. DATE DRILLED 11/20/07

5. TOTAL DEPTH: 15.0

6. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒

7. STATIC WATER LEVEL Below Top of Casing: 11.0 FT.

(Use "+" if Above Top of Casing)

8. TOP OF CASING IS -5 FT. Above Land Surface*

*Top of casing terminated at/or below land surface requires a variance in accordance with 15A NCAC 2C .0118.

9. YIELD (gpm): _____ METHOD OF TEST _____

10. WATER ZONES (depth): _____

11. DISINFECTION: Type _____ Amount _____

12. CASING: _____ Wall Thickness _____

From	To	Depth	Diameter	or Weight/Ft.	Material
From <u>-5</u>	To <u>5.0</u>	Ft. <u>9"</u>	<u>Sch 40</u>	<u>PVC</u>	
From _____	To _____	Ft. _____	_____	_____	_____
From _____	To _____	Ft. _____	_____	_____	_____

13. GROUT: _____

From	To	Depth	Material	Method
From <u>3.0</u>	To <u>4.0</u>	Ft. <u>Butt</u>	<u>Grout</u>	<u>Grout</u>
From <u>-15</u>	To <u>3.0</u>	Ft. <u>Grout</u>	<u>Grout</u>	<u>Grout</u>

14. SCREEN: _____

From	To	Depth	Diameter	Slot Size	Material
From <u>5.0</u>	To <u>15.0</u>	Ft. <u>2 in.</u>	<u>10 in.</u>	<u>PVC</u>	
From _____	To _____	Ft. _____	_____	_____	_____

15. SAND/GRAVEL PACK: _____

From	To	Depth	Size	Material
From <u>4.0</u>	To <u>15.0</u>	Ft. <u>#2</u>	<u>SAND</u>	
From _____	To _____	Ft. _____	_____	_____

16. REMARKS: _____

Topographic/Land setting
☐ Ridge ☐ Slope ☐ Valley ☒ Flat
(check appropriate box)

Latitude/longitude of well location

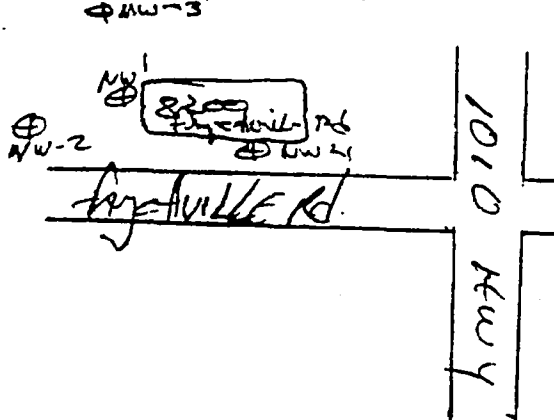
(degrees/minutes/seconds)

Latitude/longitude source: ☐ GPS ☐ Topographic map
(check box)

DEPTH		DRILLING LOG
From	To	Formation Description
<u>0</u>	<u>5.0</u>	<u>Reddish Brown</u>
		<u>AND GRAY FINE</u>
		<u>SANDY SILT</u>
		<u>AND FILL.</u>
<u>5.0-15.0</u>		<u>Change to</u>
		<u>Brown and</u>
		<u>yellow fine</u>
		<u>sandy silt</u>

LOCATION SKETCH

Show direction and distance in miles from at least two State Roads or County Roads. Include the road numbers and common road names.



I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER

SIGNATURE OF PERSON CONSTRUCTING THE WELL

DATE

Submit the original to the Division of Water Quality, Groundwater Section, 1636 Mail Service Center - Raleigh, NC 27699-1636 Phone No. (919) 733-3221, within 30 days.

GW-1 REV. 07/2001

WELL CONSTRUCTION RECORD

North Carolina - Department of Environment and Natural Resources - Division of Water Quality - Groundwater Section

WELL CONTRACTOR (INDIVIDUAL) NAME Leo H. Charbonneau, Jr. CERTIFICATION # 2845
WELL CONTRACTOR COMPANY NAME J & L DRILLING, INC. PHONE # (919) 989-8836

STATE WELL CONSTRUCTION PERMITS _____ ASSOCIATED WQ PERMITS _____
(if applicable) (if applicable)

1. WELL USE (Check Applicable Box): Residential ☐ Municipal/Public ☐ Industrial ☐ Agricultural ☐
Monitoring ☒ Recovery ☐ Heat Pump Water Injection ☐ Other ☐ If Other, List Use NW-4

2. WELL LOCATION:

Nearest Town: CARRIER County WAKE
8200 Fayetteville Rd
(Street Name, Number, Community, Subdivision, Lot No., Zip Code)

OWNER: Mr. EW Williams
90 Mr. Henry Sink
Address PO BOX 1471
Raleigh NC 27602
(Street or Route No.)
City or Town State Zip Code

Area code-Phone number

4. DATE DRILLED 1-20-03

5. TOTAL DEPTH: 20.0'

6. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒

7. STATIC WATER LEVEL Below Top of Casing: 13.0 FT.

8. TOP OF CASING IS 5 FT. Above Land Surface*
(Use "+" if Above Top of Casing)

*Top of casing terminated at or below land surface requires a variance in accordance with 15A NCAC 2C .0118.

9. YIELD (gpm): _____ METHOD OF TEST _____

10. WATER ZONES (depth): _____

11. DISINFECTION: Type _____ Amount _____

12. CASING:

From	To	Depth	Diameter	Wall Thickness or Weight/Ft.	Material
From <u>1.5</u>	To <u>10.0</u>	Ft.	<u>2</u>	<u>SCH 40</u>	<u>PVC</u>
From _____	To _____	Ft.	_____	_____	_____
From _____	To _____	Ft.	_____	_____	_____

13. GROUT: Depth _____ Material _____ Method _____

From	To	Depth	Material	Method
From <u>1.5</u>	To <u>8.0</u>	Ft.	<u>Portland Cement</u>	<u>Grout</u>
From <u>10.0</u>	To <u>13.0</u>	Ft.	<u>Cement</u>	<u>Grout</u>

14. SCREEN: Depth _____ Diameter _____ Slot Size _____ Material _____

From	To	Depth	Diameter	Slot Size	Material
From <u>10.0</u>	To <u>20.0</u>	Ft.	<u>2</u> in.	<u>.10</u> in.	<u>PVC</u>
From _____	To _____	Ft.	_____ in.	_____ in.	_____

15. SAND/GRAVEL PACK:

From	To	Depth	Size	Material
From <u>8.0</u>	To <u>20.0</u>	Ft.	<u>#2</u>	<u>GW</u>
From _____	To _____	Ft.	_____	_____

16. REMARKS: _____

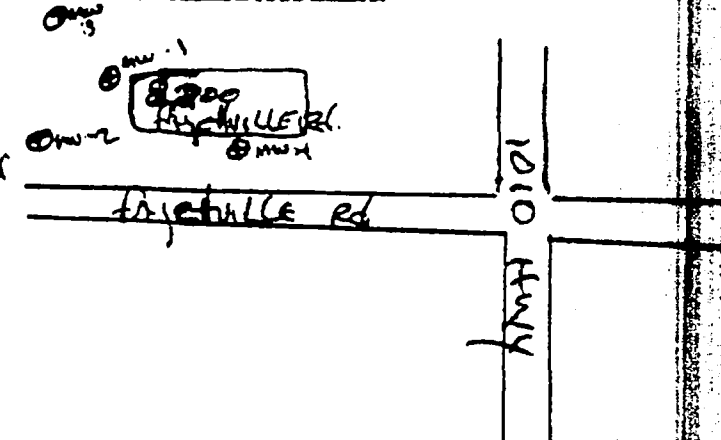
Topographic/Land setting
☐ Ridge ☐ Slope ☐ Valley ☒ Flat
(check appropriate box)
Latitude/longitude of well location _____

(degree/minute/seconds)
Latitude/longitude source: ☐ GPS ☒ Topographic map
(check box)

DEPTH		DRILLING LOG
From	To	Formation Description
<u>0</u>	<u>13.0</u>	<u>Reddish Brown</u>
		<u>PVC GRAY FINE</u>
		<u>SANDY SILT</u>
<u>13.0</u>	<u>20.0</u>	<u>Change to Brown</u>
		<u>- AND Yellow</u>
		<u>Fine Silt</u>
		<u>SANDY (Rund)</u>

LOCATION SKETCH

Show direction and distance in miles from at least two State Roads or County Roads. Include the road numbers and common road names.



I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER

SIGNATURE OF PERSON CONSTRUCTING THE WELL

DATE

Submit the original to the Division of Water Quality, Groundwater Section, 1636 Mail Service Center - Raleigh, NC 27605-1636 Phone No. (919) 733-3221, within 30 days.

GW-1 REV. 07/2001



NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2573

1. WELL CONTRACTOR:

Anthony A. Shuster

Well Contractor (Individual) Name

Graham & Currie Well Drilling Co., Inc.

Well Contractor Company Name

STREET ADDRESS 4530 NC Hwy 73

West End NC 27376

City or Town State Zip Code

(910) 673-2921

Area code- Phone number

2. WELL INFORMATION:

SITE WELL ID # (if applicable) MW# 5

STATE WELL PERMIT # (if applicable)

DWQ or OTHER PERMIT # (if applicable)

WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐

Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐

Irrigation ☐ Other ☐ (list use)

DATE DRILLED 5/04/06

TIME COMPLETED 5:00

AM ☐ PM ☒

3. WELL LOCATION:

CITY: Raleigh COUNTY Wake

8200 Fayetteville Rd. Raleigh NC 27606

(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

☐ Slope ☐ Valley ☒ Flat ☐ Ridge ☐ Other

(check appropriate box)

LATITUDE 3

LONGITUDE

May be in degrees, minutes, seconds or in a decimal format

Latitude/longitude source: ☐ GPS ☒ Topographic map

(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY- Is the name of the business where the well is located.

FACILITY ID # (if applicable)

NAME OF FACILITY E.W. Williams

STREET ADDRESS 8200 Fayetteville Rd.

Raleigh NC 27606

City or Town State Zip Code

CONTACT PERSON Pat Shillington

MAILING ADDRESS 3008 Anderson Dr., Suite 102

Raleigh NC 27809

City or Town State Zip Code

(919) 781-7798

Area code - Phone number

5. WELL DETAILS:

a. TOTAL DEPTH: 20ft

b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒

c. WATER LEVEL Below Top of Casing: n/a FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS +/- 0 FT. Above Land Surface*

*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): n/a METHOD OF TEST

f. DISINFECTION: Type n/a Amount

g. WATER ZONES (depth):

From To From To

From 4ft To 20ft From To

From To From To

6. CASING:

From 0 To 5 Ft. Diameter 2-inch Thickness/ Weight sch40 Material PVC

From To Ft. in. in. in.

From To Ft. in. in. in.

7. GROUT:

Depth Material Method

From 0 To 1 Ft. Portland Pour

From 1 To 3 Ft. Bentonite Pour

From To Ft. in. in. in.

8. SCREEN:

Depth Diameter Slot Size Material

From 5 To 20 Ft. 2 in. 10 in. PVC

From To Ft. in. in. in.

From To Ft. in. in. in.

9. SAND/GRAVEL PACK:

Depth Size Material

From 3 To 20 Ft. 10-30 Silica Sand

From To Ft. in. in. in.

From To Ft. in. in. in.

10. DRILLING LOG

From To Formation Description

0 5 Clays

5 20 Clays & Saprolite

11. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Signature of Anthony A. Shuster 5-8-06
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

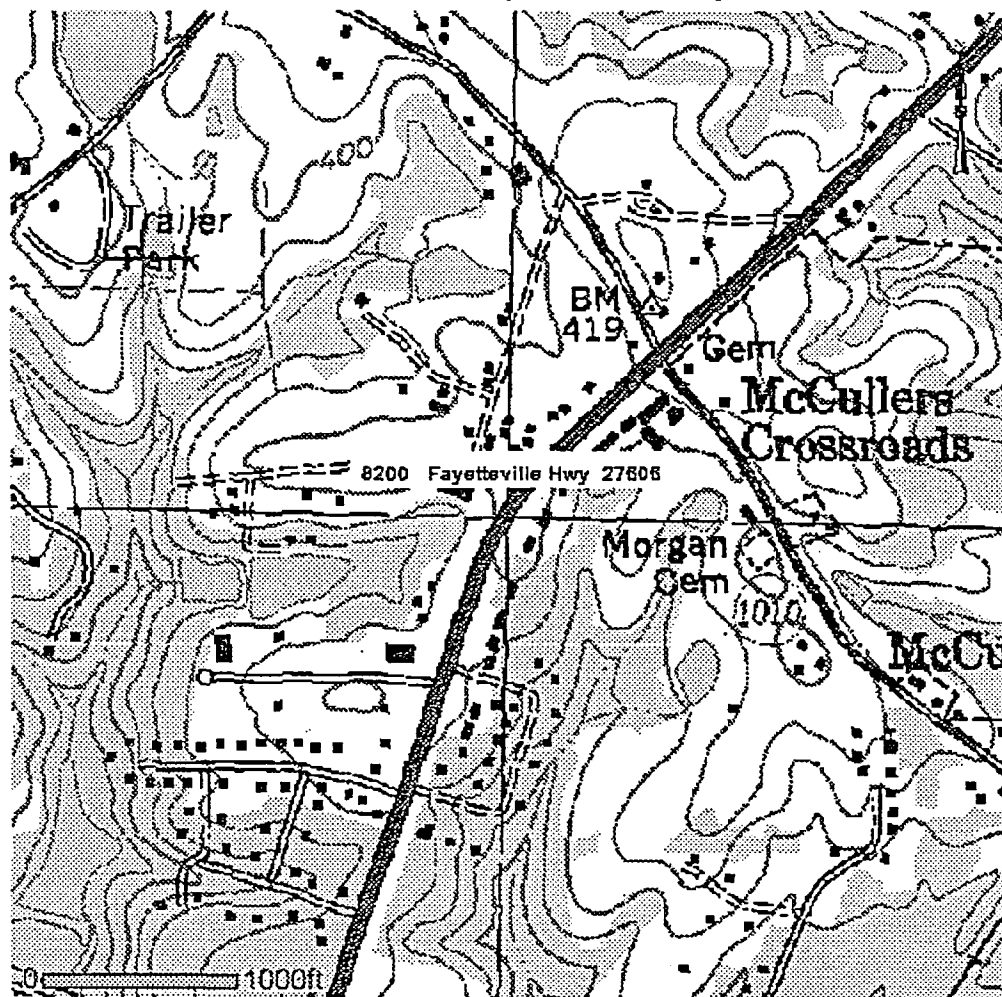
Anthony A. Shuster
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days. Attn: Information Mgt.,
1617 Mail Service Center - Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 7/05

Map for 8200 Fayetteville Hwy 27606

Location of 8200 Fayetteville Hwy 27606



1:12,000

Lake Wheeler
7.5-minute Quadrangle

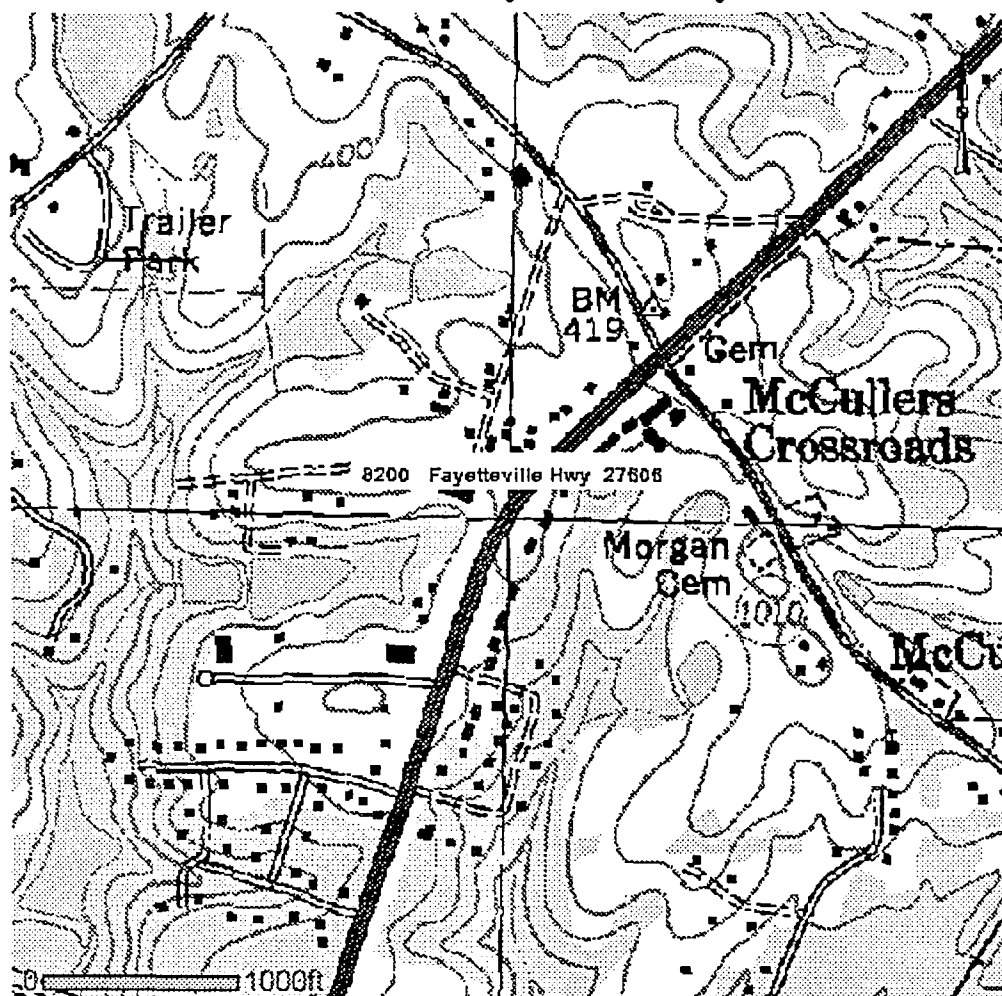
NC SPCS E: 636602.7, N:212280.2 meters (NAD83)
Long: -78.7017600 W, Lat: 35.6632550 N (NAD83)



Index map

Map for 8200 Fayetteville Hwy 27606

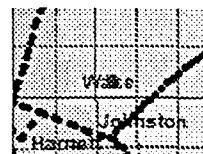
Location of 8200 Fayetteville Hwy 27606



1:12,000

Lake Wheeler
7.5-minute Quadrangle

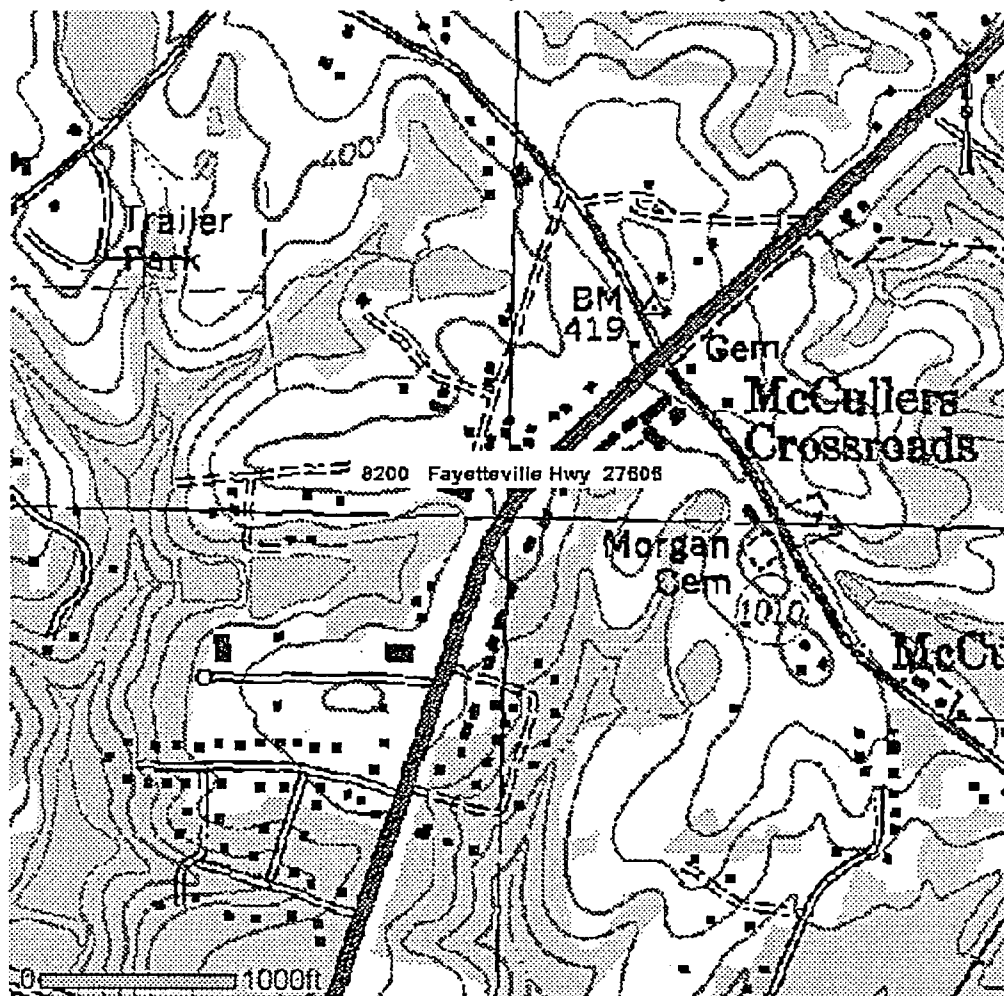
NC SPCS E: 636602.7, N:212280.2 meters (NAD83)
Long: -78.7017600 W, Lat: 35.6632550 N (NAD83)



Index map

Map for 8200 Fayetteville Hwy 27606

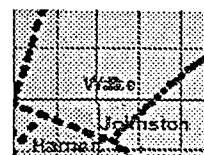
Location of 8200 Fayetteville Hwy 27606



1:12,000

Lake Wheeler
7.5-minute Quadrangle

NC SPCS E: 636602.7, N:212280.2 meters (NAD83)
Long: -78.7017600 W, Lat: 35.6632550 N (NAD83)



Index map



***Non RESIDENTIAL* WELL CONSTRUCTION RECORD**
North Carolina Department of Environment and Natural Resources- Division of Water Quality
WELL CONTRACTOR CERTIFICATION # 2487

1. WELL CONTRACTOR:

ARNOLD CHAPEL

Well Contractor (Individual) Name

PARRATT-WOLFF, INC.

Well Contractor Company Name

STREET ADDRESS 501 MILLSTONE DRIVE

HILLSBOROUGH, NC 27278

City or Town State Zip Code

(919) 644-2814

Area code- Phone number

2. WELL INFORMATION:

SITE WELL ID #(if applicable) NW-8

STATE WELL PERMIT #(if applicable)

DWQ or OTHER PERMIT #(if applicable)

WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐

Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐

Irrigation ☐ Other ☐ (list use)

DATE DRILLED 3/14/08

TIME COMPLETED AM ☐ PM ☐

3. WELL LOCATION:

CITY: RALEIGH COUNTY WAKE

8200 FAYETTEVILLE ROAD

(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

☐ Slope ☐ Valley ☐ Flat ☐ Ridge ☐ Other

(check appropriate box)

LATITUDE 3 5 39.793'

LONGITUDE 7 8 42.160'

May be in degrees,
minutes, seconds or
in a decimal format

Latitude/longitude source: ☐ GPS ☒ Topographic map

(location of well must be shown on a USGS topo map and
attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.

FACILITY ID #(if applicable)

NAME OF FACILITY LIEBHERR EQUIPMENT

STREET ADDRESS 8200 FAYETTEVILLE ROAD

RALEIGH NC 27603

City or Town State Zip Code

CONTACT PERSON

MAILING ADDRESS

City or Town State Zip Code

Area code - Phone number

5. WELL DETAILS:

a. TOTAL DEPTH: 13.0'

b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒

c. WATER LEVEL Below Top of Casing: 3.0 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 0 FT. Above Land Surface*

*Top of casing terminated at/or below land surface may require
a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): N/A METHOD OF TEST N/A

f. DISINFECTION: Type N/A Amount N/A

g. WATER ZONES (depth):

From N/A To From To

From To From To

From To From To

6. CASING:

From	To	Depth	Diameter	Thickness/ Weight	Material
0	3.0	Ft.	2"	SCH 40	PVC
From	To	Ft.			
From	To	Ft.			

7. GROUT:

From	To	Depth	Material	Method
0	.5	Ft.	PORTLAND	TREMIE
.5	2.5	Ft.	BENTONITE	TREMIE
From	To	Ft.		

8. SCREEN:

From	To	Depth	Diameter	Slot Size	Material
3.0	13.0	Ft.	2" in.	.010 in.	PVC
From	To	Ft.	in.	in.	
From	To	Ft.	in.	in.	

9. SAND/GRAVEL PACK:

From	To	Depth	Size	Material
2.5	13.0	Ft.	#1	SAND
From	To	Ft.		
From	To	Ft.		

10. DRILLING LOG

From To Formation Description

0 2.0' Brown, wet/moist, fine/coarse SAND & SILT

11. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH
15A NCAC 2C. WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS
RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Arnold W. Chapel
SIGNATURE OF CERTIFIED WELL CONTRACTOR

4/2/08
DATE

Arnold W. Chapel
PRINTED NAME OF PERSON CONSTRUCTING THE WELL



Non RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2487

1. WELL CONTRACTOR:

ARNOLD CHAPEL

Well Contractor (Individual) Name

PARRATT-WOLFF, INC.

Well Contractor Company Name

STREET ADDRESS 501 MILLSTONE DRIVE

HILLSBOROUGH, NC 27278

City or Town

State

Zip Code

(919) 644-2814

Area code- Phone number

2. WELL INFORMATION:

SITE WELL ID #(if applicable) NW-9

STATE WELL PERMIT #(if applicable)

DWQ or OTHER PERMIT #(if applicable)

WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐

Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐

Irrigation ☐ Other ☐ (list use)

DATE DRILLED 3/14/08

TIME COMPLETED AM ☐ PM ☐

3. WELL LOCATION:

CITY: RALEIGH COUNTY WAKE

8200 FAYETTEVILLE ROAD

(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

☐ Slope ☐ Valley ☐ Flat ☐ Ridge ☐ Other

(check appropriate box)

LATITUDE 3 5 39.793'

LONGITUDE 7 8 42.160'

May be in degrees, minutes, seconds or in a decimal format

Latitude/longitude source: ☐ GPS ☒ Topographic map

(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.

FACILITY ID #(if applicable)

NAME OF FACILITY LIEBHERR EQUIPMENT

STREET ADDRESS 8200 FAYETTEVILLE ROAD

RALEIGH

NC

27603

City or Town

State

Zip Code

CONTACT PERSON

MAILING ADDRESS

City or Town

State

Zip Code

()

Area code - Phone number

5. WELL DETAILS:

a. TOTAL DEPTH: 13.0'

b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒

c. WATER LEVEL Below Top of Casing: 4.5 FT.

(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 0 FT. Above Land Surface*

*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): N/A METHOD OF TEST N/A

f. DISINFECTION: Type N/A Amount N/A

g. WATER ZONES (depth):

From N/A To From To

From To From To

From To From To

6. CASING:

Depth	Diameter	Thickness/Weight	Material
From 0 To 3.0 Ft.	2"	SCH 40	PVC
From To Ft.			
From To Ft.			

7. GROUT:

Depth	Material	Method
From 0 To .5 Ft.	PORTLAND	TREMIE
From .5 To 2.5 Ft.	BENTONITE	TREMIE
From To Ft.		

8. SCREEN:

Depth	Diameter	Slot Size	Material
From 3.0 To 13.0 Ft.	2" in.	.010 in.	PVC
From To Ft.	in.	in.	
From To Ft.	in.	in.	

9. SAND/GRAVEL PACK:

Depth	Size	Material
From 2.5 To 13.0 Ft.	#1	SAND
From To Ft.		
From To Ft.		

10. DRILLING LOG

From To Formation Description

0 2.0' Brown/black, wet/moist, fine/coarse SAND & SILT; trace peat

4.0 6.0 White/gray, wet, fine/coarse SAND; trace silt

11. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Arnold W. Chapel

SIGNATURE OF CERTIFIED WELL CONTRACTOR

4/2/08

DATE

Arnold W. Chapel

PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days. Attn: Information Mgt.,
1617 Mail Service Center - Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 7/05



Non RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2487

1. WELL CONTRACTOR:

ARNOLD CHAPEL

Well Contractor (Individual) Name

PARRATT-WOLFF, INC.

Well Contractor Company Name

STREET ADDRESS 501 MILLSTONE DRIVE

HILLSBOROUGH, NC 27278

City or Town

State

Zip Code

(919) 644-2814

Area code- Phone number

2. WELL INFORMATION:

SITE WELL ID #(if applicable) NW-10

STATE WELL PERMIT #(if applicable)

DWQ or OTHER PERMIT #(if applicable)

WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐

Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐

Irrigation ☐ Other ☐ (list use)

DATE DRILLED 3/14/08

TIME COMPLETED AM ☐ PM ☐

3. WELL LOCATION:

CITY: RALEIGH COUNTY WAKE

8200 FAYETTEVILLE ROAD

(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

☐ Slope ☐ Valley ☐ Flat ☐ Ridge ☐ Other
(check appropriate box)

LATITUDE 35 39.793'

LONGITUDE 78 42.160'

May be in degrees,
minutes, seconds or
in a decimal format

Latitude/longitude source: ☐ GPS ☒ Topographic map

(location of well must be shown on a USGS topo map and
attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.

FACILITY ID #(if applicable)

NAME OF FACILITY LIEBHERR EQUIPMENT

STREET ADDRESS 8200 FAYETTEVILLE ROAD

RALEIGH

NC

27603

City or Town

State

Zip Code

CONTACT PERSON

MAILING ADDRESS

City or Town

State

Zip Code

()-

Area code - Phone number

5. WELL DETAILS:

a. TOTAL DEPTH: 20.0'

b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒

c. WATER LEVEL Below Top of Casing: 10.5 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 0 FT. Above Land Surface*

*Top of casing terminated at/or below land surface may require
a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): N/A METHOD OF TEST N/A

f. DISINFECTION: Type N/A Amount N/A

g. WATER ZONES (depth):

From N/A To From To

From To From To

From To From To

6. CASING:

From	To	Depth	Diameter	Thickness/ Weight SCH 40	Material PVC
0	5.0	Ft.	2"		
		Ft.			
		Ft.			

7. GROUT:

From	To	Depth	Material	Method
0	.5	Ft.	PORTLAND	TREMIE
.5	3.0	Ft.	BENTONITE	TREMIE
		Ft.		

8. SCREEN:

From	To	Depth	Diameter	Slot Size	Material
5.0	20.0	Ft.	2" in.	.010 in.	PVC
		Ft.			
		Ft.			

9. SAND/GRAVEL PACK:

From	To	Depth	Size	Material
3.0	20.0	Ft.	#1	SAND
		Ft.		
		Ft.		

10. DRILLING LOG

From To

Formation Description

5.0 7.0'

Light brown, wet/moist, very dense/medium dense,
fine/coarse SAND & SILT

11. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH
15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS
RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Arnold W. Chapel
SIGNATURE OF CERTIFIED WELL CONTRACTOR

4/2/08
DATE

Arnold W. Chapel
PRINTED NAME OF PERSON CONSTRUCTING THE WELL



Non RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2487

1. WELL CONTRACTOR:

ARNOLD CHAPEL

Well Contractor (Individual) Name

PARRATT-WOLFF, INC.

Well Contractor Company Name

STREET ADDRESS 501 MILLSTONE DRIVE

HILLSBOROUGH, NC 27278

City or Town State Zip Code

(919) 644-2814

Area code- Phone number

2. WELL INFORMATION:

SITE WELL ID #(if applicable) DCW-1

STATE WELL PERMIT #(if applicable)

DWQ or OTHER PERMIT #(if applicable)

WELL USE (Check Applicable Box) Monitoring ☒ Municipal/Public ☐

Industrial/Commercial ☐ Agricultural ☐ Recovery ☐ Injection ☐

Irrigation ☐ Other ☐ (list use)

DATE DRILLED 3/13-3/18/08

TIME COMPLETED AM ☐ PM ☐

3. WELL LOCATION:

CITY: RALEIGH COUNTY WAKE

8200 FAYETTEVILLE ROAD

(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

TOPOGRAPHIC / LAND SETTING:

☐ Slope ☐ Valley ☐ Flat ☐ Ridge ☐ Other

(check appropriate box)

LATITUDE 3 5 39.793'

LONGITUDE 7 8 42.160'

May be in degrees, minutes, seconds or in a decimal format

Latitude/longitude source: ☐ GPS ☒ Topographic map

(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

4. FACILITY- is the name of the business where the well is located.

FACILITY ID #(if applicable)

NAME OF FACILITY LIEBHERR EQUIPMENT

STREET ADDRESS 8200 FAYETTEVILLE ROAD

RALEIGH NC 27603

City or Town State Zip Code

CONTACT PERSON

MAILING ADDRESS

City or Town State Zip Code

()-

Area code - Phone number

5. WELL DETAILS:

a. TOTAL DEPTH: 57.0'

b. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒

c. WATER LEVEL Below Top of Casing: 17.0 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 0 FT. Above Land Surface*

*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): N/A METHOD OF TEST N/A

f. DISINFECTION: Type N/A Amount N/A

g. WATER ZONES (depth):

From N/A To From To

From To From To

From To From To

6. CASING:

From	To	Depth	Diameter	Thickness/Weight	Material
0	40	Ft.	6"	SCH 40	PVC
0	52	Ft.	2"	SCH 40	PVC
		Ft.			

7. GROUT:

From	To	Depth	Material	Method
0	45	Ft.	PORTLAND	TREMIE
45	50	Ft.	BENTONITE	TREMIE
		Ft.		

8. SCREEN:

From	To	Depth	Diameter	Slot Size	Material
52	57	Ft.	2" in.	.010 in.	PVC
		Ft.	in.	in.	
		Ft.	in.	in.	

9. SAND/GRAVEL PACK:

From	To	Depth	Size	Material
50	57	Ft.	#1	SAND
		Ft.		
		Ft.		

10. DRILLING LOG

From To Formation Description

NO SAMPLES TAKEN

11. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C. WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Arnold W. Chapel

SIGNATURE OF CERTIFIED WELL CONTRACTOR

4/2/08

DATE

Arnold W. Chapel

PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit the original to the Division of Water Quality within 30 days. Attn: Information Mgt.,
1617 Mail Service Center - Raleigh, NC 27699-1617 Phone No. (919) 733-7015 ext 568.

Form GW-1b
Rev. 7/05

ATTACHMENT D:
Evaluation Methods

EVALUATION METHODS

Soil Boring & Well Installation

Monitoring well installation was conducted using a hollow stem drilling method. Prior to each well installation, the drill rig and sampling equipment were deconned.

Initial soil samples were collected using a 3-inch diameter handauger. The handauger was deconned using a distilled water-alconex solution, followed by a distilled water rinse, prior to conducting each boring and collecting a soil sample. The closure samples after excavation were collected from the backhoe bucket using new surgical gloves. Test pit samples were collected from the backhoe bucket as well using new surgical gloves. Samples were analyzed using the sampling methodologies specified in Table 4.

Well Development and Well Purging

The mechanical process of drilling monitoring wells disturbs the subsurface materials surrounding the borehole. These materials are suspended and transported in the groundwater and can potentially accumulate and seal the water-bearing formation, reducing permeability in the vicinity of newly installed well(s). To counter these effects and thus allow for subsequent data collection representative of the subsurface, the wells were developed by hand bailing. Well development was completed when the water appeared to be free of fine sediment.

Each well targeted for sampling was purged of no less than three well volumes of water prior to sample collection. This task was accomplished utilizing a new disposable bailer for each well. A predetermined volume of water was extracted from each well, and then the wells were allowed sufficient time to recharge prior to groundwater sample collection.

Prior to sampling the water supply well, the well was run approximately 20 min.

Well Gauging

All wells were gauged, using an electronic interface probe, to determine the current water table elevation and to investigate for the presence/absence of Phase Separated Hydrocarbons (PSH). The interface probe uses conductivity sensors which are capable of detecting as little as 0.01 feet of phase separated petroleum hydrocarbons on the water table.

Groundwater Sampling

Groundwater sampling was performed on the monitoring wells to provide information of the degree of dissolved hydrocarbons and metals, if any, in the groundwater representative of the site. All water samples submitted for chemical analysis were properly packaged, labeled and placed on ice for preservation. The samples were delivered to TestAmerica, Inc in Nashville, TN and Summit Environmental in Akron, OH with all appropriate chain-of-custody documentation accompanying the samples.

Site Survey

The horizontal location of the monitoring wells was determined using taping methods and utilization of the USGS Lake Wheeler Quadrangle topographic map. Elevation of the monitoring well were determined with a surveyor's level with the building finished floor assigned an elevation of 100ft.

ATTACHMENT E:
Laboratory Analytical Results

Chemical & Environmental Technology, Inc.

102-A Woodwinds Industrial Ct. Cary, NC 27511

(919) 467-3090 FAX: (919) 467-3515

CHAIN OF CUSTODY

Page 1 of 1

CLIENT NAME: E ² S						Turnaround Time: <input checked="" type="checkbox"/> Normal (2 weeks) <input type="checkbox"/> Rush (1 week)* <input type="checkbox"/> Rush (48 hours)* <input type="checkbox"/> Rush (24 hours)*						ANALYSES REQUIRED 601# 602# 625 8260 8270											
ADDRESS: 3008 Anderson Dr ste 102 Raleigh NC 27609												BILL TO: E ² S											
ATTENTION: P. Skillington						PHONE: FAX: 781-7798						ADDRESS:											
PROJECT NO:						PROJECT NAME: E.W. Williams Construction						PURCHASE ORDER NO:											
COLLECTED BY: (Signature) Chris Mason						PRINTED NAME: Chris Mason						PRESERVED IN FIELD <input checked="" type="checkbox"/> PRESERVED IN LAB <input type="checkbox"/> RECEIVED ON ICE <input checked="" type="checkbox"/>											
CET SAMPLE #	DATE	TIME	SAMPLE COM	TYPE GRAB	SAMPLE I.D.	SAMPLE MATRIX	# OF CONTAINERS	PRESERVATIVES															
								NONE	ASCORBIC	NaS ₂ O ₃	NaOH	H ₂ SO ₄	HNO ₃	HCl									
	7/7/03	12:30		X	SS-1	soil	5																
	7/7/03	12:50		X	MW-1	H ₂ O	2	X						2									
	7/7/03	11:30		X	wsw	H ₂ O	5	X	X	X				4									
RELINQUISHED BY (Signature)								DATE		TIME		RECEIVED BY (Signature)			RELINQUISHED BY (Signature)		DATE		TIME		RECEIVED BY (Signature)		
RELINQUISHED BY (Signature)								DATE		TIME		RECEIVED FOR LABORATORY BY:			DATE		TIME		ADDITIONAL INSTRUCTIONS:				

*Rush work requires laboratory approval prior to sample submission. Additional charges may apply.

CHAIN OF CUSTODY

Page 1 of 1

☐ SHADED AREAS FOR LABORATORY USE

[illegible]

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 3 of 3

PROJECT NAME : E.W.WILLIAMS

CONTINUATION OF DATA FOR SAMPLE NUMBER 208707

ANALYSIS	METHOD	SAMPLE PREP ANALYSIS		BY	RESULT UNITS	PQL
		DATE	BY DATE			
N-NITROSODI-n-PROPYLAMINE	8270				< 2000 ug/kg	2000
PHENANTHRENE	8270				< 2000 ug/kg	2000
PYRENE	8270				< 2000 ug/kg	2000
1,2,4-TRICHLOROBENZENE	8270				< 2000 ug/kg	2000
ACIDS	8270					
BENZOIC ACID	8270				< 2000 ug/kg	2000
4-CHLORO-3-METHYLPHENOL	8270				< 2000 ug/kg	2000
2-CHLOROPHENOL	8270				< 2000 ug/kg	2000
2,4-DICHLOROPHENOL	8270				< 2000 ug/kg	2000
2,6-DICHLOROPHENOL	8270				< 2000 ug/kg	2000
2,4-DIMETHYLPHENOL	8270				< 2000 ug/kg	2000
2,4-DINITROPHENOL	8270				< 4000 ug/kg	4000
2-METHYL-4,6-DINITROPHENOL	8270				< 2000 ug/kg	2000
2-METHYLPHENOL	8270				< 2000 ug/kg	2000
4-METHYLPHENOL	8270				< 2000 ug/kg	2000
2-NITROPHENOL	8270				< 2000 ug/kg	2000
4-NITROPHENOL	8270				< 4000 ug/kg	4000
PENTACHLOROPHENOL	8270				< 4000 ug/kg	4000
PHENOL	8270				< 2000 ug/kg	2000
2,3,4,6-TETRACHLOROPHENOL	8270				< 2000 ug/kg	2000
2,4,5-TRICHLOROPHENOL	8270				< 2000 ug/kg	2000
2,4,6-TRICHLOROPHENOL	8270				< 2000 ug/kg	2000

PQL = Practical Quantitation Limit

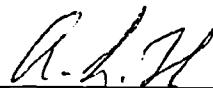
Results followed by the letter J are estimated concentrations.

All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.) (percent solids)/100.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

* PLEASE SEE THE ENCLOSED REPORT FROM ENVIRONMENTAL SCIENCE CORPORATION.

LABORATORY DIRECTOR



CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

FINAL REPORT OF ANALYSES

E2S

Attn: PAT SHILLINGTON
3008 ANDERSON DRIVE
SUITE 102
RALEIGH, NC 27609-

REPORT DATE: 07/21/03

SAMPLE NUMBER- 208708 SAMPLE ID- MW-1
DATE SAMPLED- 07/07/03
DATE RECEIVED- 07/09/03 SAMPLER- CHRIS MASON
TIME RECEIVED- 0835 DELIVERED BY- CHRIS MASON

SAMPLE MATRIX- GW
TIME SAMPLED- 1250
RECEIVED BY- ALT

Page 1 of 2

PROJECT NAME : E.W.WILLIAMS

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT UNITS	PQL
PURGEABLE HALOCARBONS	EPA 601	07/14/03	JBR		
BROMODICHLOROMETHANE	EPA 601			< 1.0 ug/L	1.0
BROMOFORM	EPA 601			< 1.0 ug/L	1.0
BROMOMETHANE	EPA 601			< 1.0 ug/L	1.0
CARBON TETRACHLORIDE	EPA 601			< 1.0 ug/L	1.0
CHLOROBENZENE	EPA 601			< 1.0 ug/L	1.0
CHLOROETHANE	EPA 601			< 1.0 ug/L	1.0
2-CHLOROETHYL VINYL ETHER	EPA 601			< 1.0 ug/L	1.0
CHLOROFORM	EPA 601			< 1.0 ug/L	1.0
CHLOROMETHANE	EPA 601			< 1.0 ug/L	1.0
DIBROMOCHLOROMETHANE	EPA 601			< 1.0 ug/L	1.0
1,2-DICHLOROBENZENE	EPA 601			< 1.0 ug/L	1.0
1,3-DICHLOROBENZENE	EPA 601			< 1.0 ug/L	1.0
1,4-DICHLOROBENZENE	EPA 601			< 1.0 ug/L	1.0
DICHLORODIFLUOROMETHANE	EPA 601			< 1.0 ug/L	1.0
1,1-DICHLOROETHANE	EPA 601			< 1.0 ug/L	1.0
1,2-DICHLOROETHANE	EPA 601			1.0 ug/L	1.0
1,1-DICHLOROETHENE	EPA 601			< 1.0 ug/L	1.0
cis-1,2-DICHLOROETHENE	EPA 601			< 1.0 ug/L	1.0
trans-1,2-DICHLOROETHENE	EPA 601			< 1.0 ug/L	1.0
1,2-DICHLOROPROPANE	EPA 601			< 1.0 ug/L	1.0

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 2 of 2

PROJECT NAME : E.W.WILLIAMS

CONTINUATION OF DATA FOR SAMPLE NUMBER 208708

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT UNITS	PQL
cis-1,3-DICHLOROPROPENE	EPA 601			< 1.0 ug/L	1.0
trans-1,3-DICHLOROPROPENE	EPA 601			< 1.0 ug/L	1.0
METHYLENE CHLORIDE	EPA 601			< 1.0 ug/L	1.0
1,1,2,2-TETRACHLOROETHANE	EPA 601			< 1.0 ug/L	1.0
TETRACHLOROETHENE	EPA 601			< 1.0 ug/L	1.0
1,1,1-TRICHLOROETHANE	EPA 601			< 1.0 ug/L	1.0
1,1,2-TRICHLOROETHANE	EPA 601			< 1.0 ug/L	1.0
TRICHLOROETHENE	EPA 601			< 1.0 ug/L	1.0
TRICHLOROFLUOROMETHANE	EPA 601			< 1.0 ug/L	1.0
VINYL CHLORIDE	EPA 601			< 1.0 ug/L	1.0
2-BROMO-1-CHLOROPROPANE	EPA 601			96.2 percent	-

PQL = Practical Quantitation Limit

Results followed by the letter J are estimated concentrations.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

* PLEASE SEE THE ENCLOSED REPORT FROM ENVIRONMENTAL SCIENCE CORPORATION.

LABORATORY DIRECTOR



CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

FINAL REPORT OF ANALYSES

E2S
Attn: PAT SHILLINGTON
3008 ANDERSON DRIVE
SUITE 102
RALEIGH, NC 27609-

REPORT DATE: 07/21/03

SAMPLE NUMBER- 208709 SAMPLE ID- WSW
DATE SAMPLED- 07/07/03
DATE RECEIVED- 07/09/03 SAMPLER- CHRIS MASON
TIME RECEIVED- 0835 DELIVERED BY- CHRIS MASON

SAMPLE MATRIX- GW
TIME SAMPLED- 1330
RECEIVED BY- ALT

Page 1 of 4

PROJECT NAME : E.W.WILLIAMS

ANALYSIS	METHOD	SAMPLE PREP DATE	ANALYSIS BY DATE	BY	RESULT UNITS	PQL
EPA 601/602	601/602		07/14/03	JBR		
PURGEABLE HALOCARBONS EPA 601	601/602				-----	-
BROMODICHLOROMETHANE	601/602				< 1.0 ug/L	1.0
BROMOFORM	601/602				< 1.0 ug/L	1.0
BROMOMETHANE	601/602				< 1.0 ug/L	1.0
CARBON TETRACHLORIDE	601/602				< 1.0 ug/L	1.0
CHLOROBENZENE	601/602				< 1.0 ug/L	1.0
CHLOROETHANE	601/602				< 1.0 ug/L	1.0
2-CHLOROETHYL VINYL ETHER	601/602				< 1.0 ug/L	1.0
CHLOROFORM	601/602				< 1.0 ug/L	1.0
CHLOROMETHANE	601/602				< 1.0 ug/L	1.0
DIBROMOCHLOROMETHANE	601/602				< 1.0 ug/L	1.0
1,2-DICHLOROBENZENE	601/602				< 1.0 ug/L	1.0
1,3-DICHLOROBENZENE	601/602				< 1.0 ug/L	1.0
1,4-DICHLOROBENZENE	601/602				< 1.0 ug/L	1.0
DICHLORODIFLUOROMETHANE	601/602				< 1.0 ug/L	1.0
1,1-DICHLOROETHANE	601/602				< 1.0 ug/L	1.0
1,2-DICHLOROETHANE	601/602				1.7 ug/L	1.0
1,1-DICHLOROETHENE	601/602				< 1.0 ug/L	1.0
cis-1,2-DICHLOROETHENE	601/602				< 1.0 ug/L	1.0
trans-1,2-DICHLOROETHENE	601/602				< 1.0 ug/L	1.0

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 2 of 4

PROJECT NAME : E.W.WILLIAMS

CONTINUATION OF DATA FOR SAMPLE NUMBER 208709

ANALYSIS	METHOD	SAMPLE PREP DATE	ANALYSIS BY DATE	BY	RESULT UNITS	PQL
1,2-DICHLOROPROPANE	601/602				< 1.0 ug/L	1.0
cis-1,3-DICHLOROPROPENE	601/602				< 1.0 ug/L	1.0
trans-1,3-DICHLOROPROPENE	601/602				< 1.0 ug/L	1.0
METHYLENE CHLORIDE	601/602				< 1.0 ug/L	1.0
1,1,2,2-TETRACHLOROETHANE	601/602				< 1.0 ug/L	1.0
TETRACHLOROETHENE	601/602				< 1.0 ug/L	1.0
1,1,1-TRICHLOROETHANE	601/602				< 1.0 ug/L	1.0
1,1,2-TRICHLOROETHANE	601/602				< 1.0 ug/L	1.0
TRICHLOROETHENE	601/602				< 1.0 ug/L	1.0
TRICHLOROFLUOROMETHANE	601/602				< 1.0 ug/L	1.0
VINYL CHLORIDE	601/602				< 1.0 ug/L	1.0
2-BROMO-1-CHLOROPROPANE	601/602				108 percent	-
PURGEABLE AROMATICS EPA 602	601/602				-----	-
BENZENE	601/602				< 1.0 ug/L	1.0
CHLOROBENZENE	601/602				< 1.0 ug/L	1.0
1,2-DICHLOROBENZENE	601/602				< 1.0 ug/L	1.0
1,3-DICHLOROBENZENE	601/602				< 1.0 ug/L	1.0
1,4-DICHLOROBENZENE	601/602				< 1.0 ug/L	1.0
ETHYLBENZENE	601/602				< 1.0 ug/L	1.0
TOLUENE	601/602				< 1.0 ug/L	1.0
TOTAL XYLENES	601/602				< 1.0 ug/L	1.0
FLUOROBENZENE	601/602				95.5 percent	-
MODIFIED EPA 8021	EPA 8021		07/14/03	JBR		
1,2-DIBROMOETHANE (EDB)	EPA 8021				< 1.0 ug/L	1.0
ISOPROPYLETHER (IPE)	EPA 8021				< 1.0 ug/L	1.0
METHYLTERT-BUTYLETHER (MTBE)	EPA 8021				< 1.0 ug/L	1.0
BASE NEUTRAL/ACIDS	EPA 625	07/11/03	JCF	07/17/03	JBR	
ACENAPHTHENE	EPA 625				< 10 ug/L	10
ACENAPHTHYLENE	EPA 625				< 10 ug/L	10
ANTHRACENE	EPA 625				< 10 ug/L	10
BENZIDINE	EPA 625				< 10 ug/L	10

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 3 of 4

PROJECT NAME : E.W.WILLIAMS

CONTINUATION OF DATA FOR SAMPLE NUMBER 208709

ANALYSIS	METHOD	SAMPLE PREP DATE	ANALYSIS BY DATE	BY	RESULT UNITS	PQL
BENZO(a) ANTHRACENE	EPA 625				< 10 ug/L	10
BENZO(b) FLUORANTHENE	EPA 625				< 10 ug/L	10
BENZO(k) FLUORANTHENE	EPA 625				< 10 ug/L	10
BENZO(g,h,i) PERYLENE	EPA 625				< 10 ug/L	10
BENZO(a) PYRENE	EPA 625				< 10 ug/L	10
bis-(2-CHLOROETHYL) ETHER	EPA 625				< 10 ug/L	10
bis-(2-CHLOROETHOXY) METHANE	EPA 625				< 10 ug/L	10
bis-(2-CHLOROISOPROPYL) ETHER	EPA 625				< 10 ug/L	10
bis-(2-ETHYLHEXYL) PHTHALATE	EPA 625				< 10 ug/L	10
4-BROMOPHENYL PHENYL ETHER	EPA 625				< 10 ug/L	10
BUTYL BENZYL PHTHALATE	EPA 625				< 10 ug/L	10
2-CHLORONAPHTHALENE	EPA 625				< 10 ug/L	10
4-CHLOROPHENYL PHENYL ETHER	EPA 625				< 10 ug/L	10
CHRYSENE	EPA 625				< 10 ug/L	10
DIBENZO(a,h) ANTHRACENE	EPA 625				< 10 ug/L	10
di-n-BUTYLPHTHALATE	EPA 625				< 10 ug/L	10
1,2-DICHLOROBENZENE	EPA 625				< 10 ug/L	10
1,3-DICHLOROBENZENE	EPA 625				< 10 ug/L	10
1,4-DICHLOROBENZENE	EPA 625				< 10 ug/L	10
3,3'-DICHLOROBENZIDINE	EPA 625				< 20 ug/L	20
DIETHYL PHTHALATE	EPA 625				< 10 ug/L	10
DIMETHYL PHTHALATE	EPA 625				< 10 ug/L	10
2,4-DINITROTOLUENE	EPA 625				< 10 ug/L	10
2,6-DINITROTOLUENE	EPA 625				< 10 ug/L	10
di-n-OCTYLPHTHALATE	EPA 625				< 10 ug/L	10
FLUORANTHENE	EPA 625				< 10 ug/L	10
FLUORENE	EPA 625				< 10 ug/L	10
HEXACHLOROBENZENE	EPA 625				< 10 ug/L	10
HEXACHLOROBUTADIENE	EPA 625				< 10 ug/L	10
HEXACHLOROCYCLOPENTADIENE	EPA 625				< 10 ug/L	10
HEXACHLOROETHANE	EPA 625				< 10 ug/L	10

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

Page 4 of 4

PROJECT NAME : E.W.WILLIAMS

CONTINUATION OF DATA FOR SAMPLE NUMBER 208709

ANALYSIS	METHOD	SAMPLE PREP DATE	ANALYSIS BY DATE	BY	RESULT UNITS	PQL
INDENO(1,2,3-cd) PYRENE	EPA 625				< 10 ug/L	10
ISOPHORONE	EPA 625				< 10 ug/L	10
NAPHTHALENE	EPA 625				< 10 ug/L	10
NITROBENZENE	EPA 625				< 10 ug/L	10
N-NITROSODIMETHYLAMINE	EPA 625				< 10 ug/L	10
N-NITROSODIPHENYLAMINE	EPA 625				< 10 ug/L	10
N-NITROSODI-n-PROPYLAMINE	EPA 625				< 10 ug/L	10
PHENANTHRENE	EPA 625				< 10 ug/L	10
PYRENE	EPA 625				< 10 ug/L	10
1,2,4-TRICHLOROBENZENE	EPA 625				< 10 ug/L	10
4-CHLORO-3-METHYLPHENOL	EPA 625				< 10 ug/L	10
2-CHLOROPHENOL	EPA 625				< 10 ug/L	10
2,4-DICHLOROPHENOL	EPA 625				< 10 ug/L	10
2,4-DIMETHYLPHENOL	EPA 625				< 10 ug/L	10
2,4-DINITROPHENOL	EPA 625				< 20 ug/L	20
2-METHYL-4,6-DINITROPHENOL	EPA 625				< 10 ug/L	10
2-NITROPHENOL	EPA 625				< 10 ug/L	10
4-NITROPHENOL	EPA 625				< 20 ug/L	20
PENTACHLOROPHENOL	EPA 625				< 20 ug/L	20
PHENOL	EPA 625				< 10 ug/L	10
2,4,6-TRICHLOROPHENOL	EPA 625				< 10 ug/L	10


PQL = Practical Quantitation Limit

Results followed by the letter J are estimated concentrations.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

* PLEASE SEE THE ENCLOSED REPORT FROM ENVIRONMENTAL SCIENCE CORPORATION.

LABORATORY DIRECTOR





ENVIRONMENTAL SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Link Thrower
Chemical & Environmental Technology
102-A Woodwinds Industrial Ct.
Cary, NC 27511

July 14, 2003

Date Received : July 10, 2003
Description : 51121

Sample ID : SS-1

Collected By : Chris Mason
Collection Date : 07/07/03 12:30

ESC Sample # : L120197-01

Site ID :

Project # : 51121

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
Total Solids	80.1		%	2540G	07/14/03	1
Volatile Organics						
Acetone	BDL	0.062	mg/kg	8260B	07/12/03	1
Acrolein	BDL	0.062	mg/kg	8260B	07/12/03	1
Acrylonitrile	BDL	0.062	mg/kg	8260B	07/12/03	1
Benzene	BDL	0.0012	mg/kg	8260B	07/12/03	1
Bromobenzene	BDL	0.0012	mg/kg	8260B	07/12/03	1
Bromodichloromethane	BDL	0.0012	mg/kg	8260B	07/12/03	1
Bromoform	BDL	0.0012	mg/kg	8260B	07/12/03	1
Bromomethane	BDL	0.0012	mg/kg	8260B	07/12/03	1
n-Butylbenzene	BDL	0.0012	mg/kg	8260B	07/12/03	1
sec-Butylbenzene	BDL	0.0012	mg/kg	8260B	07/12/03	1
tert-Butylbenzene	BDL	0.0012	mg/kg	8260B	07/12/03	1
Carbon tetrachloride	BDL	0.0012	mg/kg	8260B	07/12/03	1
Chlorobenzene	BDL	0.0012	mg/kg	8260B	07/12/03	1
Chlorodibromomethane	BDL	0.0012	mg/kg	8260B	07/12/03	1
Chloroethane	BDL	0.0012	mg/kg	8260B	07/12/03	1
2-Chloroethyl vinyl ether	BDL	0.062	mg/kg	8260B	07/12/03	1
Chloroform	BDL	0.0062	mg/kg	8260B	07/12/03	1
Chloromethane	BDL	0.0012	mg/kg	8260B	07/12/03	1
2-Chlorotoluene	BDL	0.0012	mg/kg	8260B	07/12/03	1
4-Chlorotoluene	BDL	0.0012	mg/kg	8260B	07/12/03	1
1,2-Dibromo-3-Chloropropane	BDL	0.0025	mg/kg	8260B	07/12/03	1
1,2-Dibromoethane	BDL	0.0012	mg/kg	8260B	07/12/03	1
Dibromomethane	BDL	0.0012	mg/kg	8260B	07/12/03	1
1,2-Dichlorobenzene	BDL	0.0012	mg/kg	8260B	07/12/03	1
1,3-Dichlorobenzene	BDL	0.0012	mg/kg	8260B	07/12/03	1
1,4-Dichlorobenzene	BDL	0.0012	mg/kg	8260B	07/12/03	1
Dichlorodifluoromethane	BDL	0.0012	mg/kg	8260B	07/12/03	1
1,1-Dichloroethane	BDL	0.0012	mg/kg	8260B	07/12/03	1
1,2-Dichloroethane	BDL	0.0012	mg/kg	8260B	07/12/03	1
1,1-Dichloroethene	BDL	0.0012	mg/kg	8260B	07/12/03	1
cis-1,2-Dichloroethene	BDL	0.0012	mg/kg	8260B	07/12/03	1
trans-1,2-Dichloroethene	BDL	0.0012	mg/kg	8260B	07/12/03	1
1,2-Dichloropropane	BDL	0.0012	mg/kg	8260B	07/12/03	1
1,1-Dichloropropene	BDL	0.0012	mg/kg	8260B	07/12/03	1
1,3-Dichloropropane	BDL	0.0012	mg/kg	8260B	07/12/03	1
cis-1,3-Dichloropropene	BDL	0.0012	mg/kg	8260B	07/12/03	1

Results listed are dry weight basis.

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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The reported analytical results relate only to the sample submitted



ENVIRONMENTAL SCIENCE CORP.

12065 Lebanon Rd.
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Est. 1970

REPORT OF ANALYSIS

July 14, 2003

Mr. Link Thrower
Chemical & Environmental Technology
102-A Woodwinds Industrial Ct.
Cary, NC 27511

Date Received : July 10, 2003
Description : 51121

Sample ID : SS-1

Collected By : Chris Mason
Collection Date : 07/07/03 12:30

ESC Sample # : L120197-01

Site ID :

Project # : 51121

Parameter	Dry Result	Det. Limit	Units	Method	Date	Dil.
trans-1,3-Dichloropropene	BDL	0.0012	mg/kg	8260B	07/12/03	1
2,2-Dichloropropane	BDL	0.0012	mg/kg	8260B	07/12/03	1
Di-isopropyl ether	BDL	0.0012	mg/kg	8260B	07/12/03	1
Ethylbenzene	BDL	0.0012	mg/kg	8260B	07/12/03	1
Hexachlorobutadiene	BDL	0.0012	mg/kg	8260B	07/12/03	1
Isopropylbenzene	BDL	0.0012	mg/kg	8260B	07/12/03	1
p-Isopropyltoluene	BDL	0.0012	mg/kg	8260B	07/12/03	1
2-Butanone (MEK)	BDL	0.0062	mg/kg	8260B	07/12/03	1
Methylene Chloride	BDL	0.0062	mg/kg	8260B	07/12/03	1
4-Methyl-2-pentanone (MIBK)	BDL	0.062	mg/kg	8260B	07/12/03	1
Methyl tert-butyl ether	BDL	0.0012	mg/kg	8260B	07/12/03	1
Naphthalene	BDL	0.0062	mg/kg	8260B	07/12/03	1
n-Propylbenzene	BDL	0.0012	mg/kg	8260B	07/12/03	1
Styrene	BDL	0.0012	mg/kg	8260B	07/12/03	1
1,1,1,2-Tetrachloroethane	BDL	0.0012	mg/kg	8260B	07/12/03	1
1,1,2,2-Tetrachloroethane	BDL	0.0012	mg/kg	8260B	07/12/03	1
Tetrachloroethene	BDL	0.0012	mg/kg	8260B	07/12/03	1
Toluene	BDL	0.0062	mg/kg	8260B	07/12/03	1
1,2,3-Trichlorobenzene	BDL	0.0012	mg/kg	8260B	07/12/03	1
1,2,4-Trichlorobenzene	BDL	0.0012	mg/kg	8260B	07/12/03	1
1,1,1-Trichloroethane	BDL	0.0012	mg/kg	8260B	07/12/03	1
1,1,2-Trichloroethane	BDL	0.0012	mg/kg	8260B	07/12/03	1
Trichloroethene	BDL	0.0012	mg/kg	8260B	07/12/03	1
Trichlorofluoromethane	BDL	0.0012	mg/kg	8260B	07/12/03	1
1,2,3-Trichloropropane	BDL	0.0012	mg/kg	8260B	07/12/03	1
1,2,4-Trimethylbenzene	BDL	0.0012	mg/kg	8260B	07/12/03	1
1,3,5-Trimethylbenzene	BDL	0.0012	mg/kg	8260B	07/12/03	1
Vinyl chloride	BDL	0.0012	mg/kg	8260B	07/12/03	1
Xylenes, Total	BDL	0.0037	mg/kg	8260B	07/12/03	1
Surrogate Recovery						
Toluene-d8	110		% Rec.	8260B	07/12/03	1
Dibromofluoromethane	95.		% Rec.	8260B	07/12/03	1
4-Bromofluorobenzene	88.		% Rec.	8260B	07/12/03	1

Cheli Boucher
Cheli Boucher, ESC Representative

Results listed are dry weight basis.

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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The reported analytical results relate only to the sample submitted

Reported: 07/14/03 17:06 Printed: 07/14/03 17:07

Attachment A
List of Analytes with QC Qualifiers

Sample #	Analyte	Qualifier
L120197-01	Acrolein	J4

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J4	The associated batch QC was outside the established quality control range for accuracy.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable unless qualified as 'R' (Rejected).

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

Control Limits

2-Fluorophenol	31-119	Nitrobenzene-d5	43-118	Dibromfluoromethane	72-125
Phenol-d5	12-134	2-Fluorobiphenyl	45-128	Toluene-d8	79-120
2,4,6-Tribromophenol	51-141	Terphenyl-d14	43-137	4-Bromofluorobenzene	66-131

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

(919) 467-3090 FAX: (919) 467-3515

CHAIN OF CUSTODY Page 1 of 1

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CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

PAGE 01

FINAL REPORT OF ANALYSES

E2S

Attn: PAT SHILLINGTON
3008 ANDERSON DRIVE
SUITE 102
RALEIGH, NC 27609-

REPORT DATE: 07/29/03

SAMPLE NUMBER- 209130 SAMPLE ID- SS-2
DATE SAMPLED- 07/24/03
DATE RECEIVED- 07/25/03 SAMPLER- C MASON
TIME RECEIVED- 1335 DELIVERED BY- C MASON

SAMPLE MATRIX- SC
TIME SAMPLED- 1200
RECEIVED BY- JCF

Page 1 of 1

PROJECT NAME : EW WILLIAMS

ANALYSIS	METHOD	SAMPLE PREP DATE	ANALYSIS BY DATE	BY	RESULT UNITS	PQL
PERCENT SOLIDS	2540G		07/28/03	RCB	82.0 NA	
OIL AND GREASE IN SOLIDS	9071	07/28/03	JCF	07/28/03	RCB	397 mg/kg 61
HIGH FRACTION HYDROCARBON	3550	07/28/03	JCF	07/28/03	JBR	< 10.0 mg/kg 10.0
LOW FRACTION HYDROCARBON	5030			07/28/03	JBR	< 1.00 mg/kg 1.00

PQL = Practical Quantitation Limit

Results followed by the letter J are estimated concentrations.

All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.) (percent solids)/100.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR

[Signature]

Post-it® Fax Note	7671	Date	7/29	# of Pages	2
To	Pat S.	From	Link		
Co/Dept.	E2-S	Co.	CET		
Phone #		Phone #			
Fax #	781-7796	Fax #			

(919) 467-3090

FAX: (919) 467-3515

48hrs

CHAIN OF CUSTODY

Page 1 of 1

CLIENT NAME: E ²⁵		Turnaround Time: <input checked="" type="checkbox"/> Normal (2 weeks) <input type="checkbox"/> Rush (1 week)* <input checked="" type="checkbox"/> Rush (48 hours)* <input type="checkbox"/> Rush (24 hours)*		ANALYSES REQUIRED		BILL TO: E ²⁵										
ADDRESS: 3008 Anderson Dr. Ste 102 Raleigh NC 27609		ATTENTION: P. Shillington		PHONE: 781-7798		FAX: 781-7798										
PROJECT NO:		PROJECT NAME: EW Williams Site		PURCHASE ORDER NO:												
COLLECTED BY: (Signature) Chris Mason		PRINTED NAME: Chris Mason		PRESERVED IN FIELD <input type="checkbox"/> PRESERVED IN LAB <input type="checkbox"/> RECEIVED ON ICE <input type="checkbox"/>		PRESERVATIVES										
CET SAMPLE #		DATE	TIME	SAMPLE COM	TYPE GRAB	SAMPLE I.D.	SAMPLE MATRIX	# OF CONTAINERS	REMARKS	NONE	ASCORBIC	Na ₂ O ₃	NaOH	H ₂ SO ₄	HNO ₃	HCl
22703		11/21/03	11:00		X	NW-1	GW	3	X							3
24		11/21/03	11:15		X	NW-2	GW	3	X							3
25		11/21/03	11:30		X	NW-3	GW	3	X							3
26		11/21/03	11:45		X	NW-4	GW	3	X							3
RELINQUISHED BY (Signature)		DATE	TIME	RECEIVED BY (Signature)		RELINQUISHED BY (Signature)		DATE	TIME	RECEIVED BY (Signature)						
11/21/03		11:40														
RELINQUISHED BY (Signature)		DATE	TIME	RECEIVED FOR LABORATORY BY:		DATE	TIME	ADDITIONAL INSTRUCTIONS:								
						11-21-03	1346	Rec'd 30°C								



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Est. 1970

REPORT OF ANALYSIS

Mr. Link Thrower
Chemical & Environmental Technology
102-A Woodwinds Industrial Ct.
Cary, NC 27511

November 25, 2003

Date Received : November 22, 2003
Description : EW Williams Site
Sample ID : NW-1 212723
Collected By : Chris Mason
Collection Date : 11/21/03 11:00

ESC Sample # : L135722-01

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	0.050	mg/l	8260B	11/24/03	1
Acrolein	BDL	0.050	mg/l	8260B	11/24/03	1
Acrylonitrile	BDL	0.050	mg/l	8260B	11/24/03	1
Benzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Bromobenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Bromodichloromethane	BDL	0.0010	mg/l	8260B	11/24/03	1
Bromoform	BDL	0.0010	mg/l	8260B	11/24/03	1
Bromomethane	BDL	0.0010	mg/l	8260B	11/24/03	1
n-Butylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
sec-Butylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
tert-Butylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Carbon tetrachloride	BDL	0.0010	mg/l	8260B	11/24/03	1
Chlorobenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Chlorodibromomethane	BDL	0.0010	mg/l	8260B	11/24/03	1
Chloroethane	BDL	0.0010	mg/l	8260B	11/24/03	1
2-Chloroethyl vinyl ether	BDL	0.050	mg/l	8260B	11/24/03	1
Chloroform	BDL	0.0050	mg/l	8260B	11/24/03	1
Chloromethane	BDL	0.0010	mg/l	8260B	11/24/03	1
2-Chlorotoluene	BDL	0.0010	mg/l	8260B	11/24/03	1
4-Chlorotoluene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2-Dibromo-3-Chloropropane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2-Dibromoethane	BDL	0.0020	mg/l	8260B	11/24/03	1
Dibromomethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2-Dichlorobenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,3-Dichlorobenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,4-Dichlorobenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Dichlorodifluoromethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1-Dichloroethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2-Dichloroethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1-Dichloroethene	BDL	0.0010	mg/l	8260B	11/24/03	1
cis-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	11/24/03	1
trans-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2-Dichloropropane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1-Dichloropropene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,3-Dichloropropane	BDL	0.0010	mg/l	8260B	11/24/03	1
cis-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	11/24/03	1
trans-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	11/24/03	1
2,2-Dichloropropane	BDL	0.0010	mg/l	8260B	11/24/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233



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REPORT OF ANALYSIS

Mr. Link Thrower
Chemical & Environmental Technology
102-A Woodwinds Industrial Ct.
Cary, NC 27511

November 25, 2003

Date Received : November 22, 2003
Description : EW Williams Site
Sample ID : NW-1 212723
Collected By : Chris Mason
Collection Date : 11/21/03 11:00

ESC Sample # : L135722-01

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Di-isopropyl ether	BDL	0.0010	mg/l	8260B	11/24/03	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Hexachlorobutadiene	BDL	0.0010	mg/l	8260B	11/24/03	1
Isopropylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
p-Isopropyltoluene	BDL	0.0010	mg/l	8260B	11/24/03	1
2-Butanone (MEK)	BDL	0.050	mg/l	8260B	11/24/03	1
Methylene Chloride	BDL	0.0050	mg/l	8260B	11/24/03	1
4-Methyl-2-pentanone (MIBK)	BDL	0.050	mg/l	8260B	11/24/03	1
Methyl tert-butyl ether	0.0020	0.0010	mg/l	8260B	11/24/03	1
Naphthalene	BDL	0.0050	mg/l	8260B	11/24/03	1
n-Propylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Styrene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1,1,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1,2,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1,2-Trichloro-1,2,2-trifluoro	BDL	0.0010	mg/l	8260B	11/24/03	1
Tetrachloroethene	BDL	0.0010	mg/l	8260B	11/24/03	1
Toluene	BDL	0.0050	mg/l	8260B	11/24/03	1
1,2,3-Trichlorobenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2,4-Trichlorobenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1,1-Trichloroethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1,2-Trichloroethane	BDL	0.0010	mg/l	8260B	11/24/03	1
Trichloroethene	BDL	0.0010	mg/l	8260B	11/24/03	1
Trichlorofluoromethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2,3-Trichloropropane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2,4-Trimethylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2,3-Trimethylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,3,5-Trimethylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Vinyl chloride	BDL	0.0010	mg/l	8260B	11/24/03	1
Xylenes, Total	BDL	0.0030	mg/l	8260B	11/24/03	1
Surrogate Recovery						
Toluene-d8	98.		† Rec.	8260B	11/24/03	1
Dibromofluoromethane	100		† Rec.	8260B	11/24/03	1
4-Bromofluorobenzene	99.		† Rec.	8260B	11/24/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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Reported: 11/25/03 17:51 Printed: 11/25/03 17:51

Cheli Boucher
Cheli Boucher, ESC Representative



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REPORT OF ANALYSIS

Mr. Link Thrower
Chemical & Environmental Technology
102-A Woodwinds Industrial Ct.
Cary, NC 27511

November 25, 2003

Date Received : November 22, 2003
Description : EW Williams Site

ESC Sample # : L135722-02

Sample ID : NW-2 212724

Site ID :

Collected By : Chris Mason
Collection Date : 11/21/03 11:15

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	0.050	mg/l	8260B	11/24/03	1
Acrolein	BDL	0.050	mg/l	8260B	11/24/03	1
Acrylonitrile	BDL	0.050	mg/l	8260B	11/24/03	1
Benzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Bromobenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Bromodichloromethane	BDL	0.0010	mg/l	8260B	11/24/03	1
Bromoform	BDL	0.0010	mg/l	8260B	11/24/03	1
Bromomethane	BDL	0.0010	mg/l	8260B	11/24/03	1
n-Butylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
sec-Butylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
tert-Butylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Carbon tetrachloride	BDL	0.0010	mg/l	8260B	11/24/03	1
Chlorobenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Chlorodibromomethane	BDL	0.0010	mg/l	8260B	11/24/03	1
Chloroethane	BDL	0.0010	mg/l	8260B	11/24/03	1
2-Chloroethyl vinyl ether	BDL	0.050	mg/l	8260B	11/24/03	1
Chloroform	BDL	0.0050	mg/l	8260B	11/24/03	1
Chloromethane	BDL	0.0010	mg/l	8260B	11/24/03	1
2-Chlorotoluene	BDL	0.0010	mg/l	8260B	11/24/03	1
4-Chlorotoluene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2-Dibromo-3-Chloropropane	BDL	0.0020	mg/l	8260B	11/24/03	1
1,2-Dibromoethane	BDL	0.0010	mg/l	8260B	11/24/03	1
Dibromomethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2-Dichlorobenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,3-Dichlorobenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,4-Dichlorobenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Dichlorodifluoromethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1-Dichloroethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2-Dichloroethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1-Dichloroethene	BDL	0.0010	mg/l	8260B	11/24/03	1
cis-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	11/24/03	1
trans-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2-Dichloropropane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1-Dichloropropene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,3-Dichloropropane	BDL	0.0010	mg/l	8260B	11/24/03	1
cis-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	11/24/03	1
trans-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	11/24/03	1
2,2-Dichloropropane	BDL	0.0010	mg/l	8260B	11/24/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
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REPORT OF ANALYSIS

Mr. Link Thrower
Chemical & Environmental Technology
102-A Woodwinds Industrial Ct.
Cary, NC 27511

November 25, 2003

Date Received : November 22, 2003
Description : EW Williams Site
Sample ID : NW-2 212724
Collected By : Chris Mason
Collection Date : 11/21/03 11:15

ESC Sample # : L135722-02

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Di-isopropyl ether	BDL	0.0010	mg/l	8260B	11/24/03	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Hexachlorobutadiene	BDL	0.0010	mg/l	8260B	11/24/03	1
Isopropylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
p-Isopropyltoluene	BDL	0.0010	mg/l	8260B	11/24/03	1
2-Butanone (MEK)	BDL	0.0010	mg/l	8260B	11/24/03	1
Methylene Chloride	BDL	0.0050	mg/l	8260B	11/24/03	1
4-Methyl-2-pentanone (MIBK)	BDL	0.0050	mg/l	8260B	11/24/03	1
Methyl tert-butyl ether	0.0015	0.0010	mg/l	8260B	11/24/03	1
Naphthalene	BDL	0.0050	mg/l	8260B	11/24/03	1
n-Propylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Styrene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1,1,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1,2,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1,2-Trichloro-1,2,2-trifluoro	BDL	0.0010	mg/l	8260B	11/24/03	1
Tetrachloroethene	BDL	0.0010	mg/l	8260B	11/24/03	1
Toluene	BDL	0.0050	mg/l	8260B	11/24/03	1
1,2,3-Trichlorobenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2,4-Trichlorobenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1,1-Trichloroethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1,2-Trichloroethane	BDL	0.0010	mg/l	8260B	11/24/03	1
Trichloroethene	BDL	0.0010	mg/l	8260B	11/24/03	1
Trichlorofluoromethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2,3-Trichloropropane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2,4-Trimethylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2,3-Trimethylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,3,5-Trimethylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Vinyl chloride	BDL	0.0010	mg/l	8260B	11/24/03	1
Xylenes, Total	BDL	0.0030	mg/l	8260B	11/24/03	1
Surrogate Recovery						
Toluene-d8	99.		% Rec.	8260B	11/24/03	1
Dibromofluoromethane	100		% Rec.	8260B	11/24/03	1
4-Bromofluorobenzene	98.		% Rec.	8260B	11/24/03	1

Cheli Boucher

Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

AZLA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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REPORT OF ANALYSIS

Mr. Link Thrower
Chemical & Environmental Technology
102-A Woodwinds Industrial Ct.
Cary, NC 27511

November 25, 2003

Date Received : November 22, 2003
Description : EW Williams Site

ESC Sample # : L135722-03

Sample ID : NW-3 212725

Site ID :

Collected By : Chris Mason
Collection Date : 11/21/03 11:30

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	0.050	mg/l	8260B	11/24/03	1
Acrolein	BDL	0.050	mg/l	8260B	11/24/03	1
Acrylonitrile	BDL	0.050	mg/l	8260B	11/24/03	1
Benzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Bromobenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Bromodichloromethane	BDL	0.0010	mg/l	8260B	11/24/03	1
Bromoform	BDL	0.0010	mg/l	8260B	11/24/03	1
Bromomethane	BDL	0.0010	mg/l	8260B	11/24/03	1
n-Butylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
sec-Butylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
tert-Butylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Carbon tetrachloride	BDL	0.0010	mg/l	8260B	11/24/03	1
Chlorobenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Chlorodibromomethane	BDL	0.0010	mg/l	8260B	11/24/03	1
Chloroethane	BDL	0.0010	mg/l	8260B	11/24/03	1
2-Chloroethyl vinyl ether	BDL	0.050	mg/l	8260B	11/24/03	1
Chloroform	BDL	0.0050	mg/l	8260B	11/24/03	1
Chloromethane	BDL	0.0010	mg/l	8260B	11/24/03	1
2-Chlorotoluene	BDL	0.0010	mg/l	8260B	11/24/03	1
4-Chlorotoluene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2-Dibromo-3-Chloropropane	BDL	0.0020	mg/l	8260B	11/24/03	1
1,2-Dibromoethane	BDL	0.0010	mg/l	8260B	11/24/03	1
Dibromomethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2-Dichlorobenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,3-Dichlorobenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,4-Dichlorobenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Dichlorodifluoromethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1-Dichloroethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2-Dichloroethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1-Dichloroethene	BDL	0.0010	mg/l	8260B	11/24/03	1
cis-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	11/24/03	1
trans-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2-Dichloropropane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1-Dichloropropene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,3-Dichloropropane	BDL	0.0010	mg/l	8260B	11/24/03	1
cis-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	11/24/03	1
trans-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	11/24/03	1
2,2-Dichloropropane	BDL	0.0010	mg/l	8260B	11/24/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233



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Est. 1970

REPORT OF ANALYSIS

Mr. Link Thrower
Chemical & Environmental Technology
102-A Woodwinds Industrial Ct.
Cary, NC 27511

November 25, 2003

Date Received : November 22, 2003
Description : EW Williams Site

Sample ID : NW-3 212725

Collected By : Chris Mason
Collection Date : 11/21/03 11:30

ESC Sample # : L135722-03

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Di-isopropyl ether	BDL	0.0010	mg/l	8260B	11/24/03	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Hexachlorobutadiene	BDL	0.0010	mg/l	8260B	11/24/03	1
Isopropylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
p-Isopropyltoluene	BDL	0.0010	mg/l	8260B	11/24/03	1
2-Butanone (MEK)	BDL	0.050	mg/l	8260B	11/24/03	1
Methylene Chloride	BDL	0.0050	mg/l	8260B	11/24/03	1
4-Methyl-2-pentanone (MIBK)	BDL	0.050	mg/l	8260B	11/24/03	1
Methyl tert-butyl ether	BDL	0.0010	mg/l	8260B	11/24/03	1
Naphthalene	BDL	0.0050	mg/l	8260B	11/24/03	1
n-Propylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Styrene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1,1,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1,2,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1,2-Trichloro-1,2,2-trifluoro	BDL	0.0010	mg/l	8260B	11/24/03	1
Tetrachloroethene	BDL	0.0010	mg/l	8260B	11/24/03	1
Toluene	BDL	0.0050	mg/l	8260B	11/24/03	1
1,2,3-Trichlorobenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2,4-Trichlorobenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1,1-Trichloroethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1,2-Trichloroethane	BDL	0.0010	mg/l	8260B	11/24/03	1
Trichloroethene	BDL	0.0010	mg/l	8260B	11/24/03	1
Trichlorofluoromethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2,3-Trichloropropane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2,4-Trimethylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2,3-Trimethylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,3,5-Trimethylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Vinyl chloride	BDL	0.0010	mg/l	8260B	11/24/03	1
Xylenes, Total	BDL	0.0030	mg/l	8260B	11/24/03	1
Surrogate Recovery						
Toluene-d8	100		% Rec.	8260B	11/24/03	1
Dibromofluoromethane	96.		% Rec.	8260B	11/24/03	1
4-Bromofluorobenzene	99.		% Rec.	8260B	11/24/03	1

Cheli Boucher
Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

The reported analytical results relate only to the sample submitted.

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Est. 1970

REPORT OF ANALYSIS

Mr. Link Thrower
Chemical & Environmental Technology
102-A Woodwinds Industrial Ct.
Cary, NC 27511

November 25, 2003

Date Received : November 22, 2003
Description : EW Williams Site

Sample ID : NW-4 212726

Collected By : Chris Mason
Collection Date : 11/21/03 11:45

ESC Sample # : L135722-04

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Volatile Organics						
Acetone	BDL	0.050	mg/l	8260B	11/24/03	1
Acrolein	BDL	0.050	mg/l	8260B	11/24/03	1
Acrylonitrile	BDL	0.050	mg/l	8260B	11/24/03	1
Benzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Bromobenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Bromodichloromethane	BDL	0.0010	mg/l	8260B	11/24/03	1
Bromoform	BDL	0.0010	mg/l	8260B	11/24/03	1
Bromomethane	BDL	0.0010	mg/l	8260B	11/24/03	1
n-Butylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
sec-Butylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
tert-Butylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Carbon tetrachloride	BDL	0.0010	mg/l	8260B	11/24/03	1
Chlorobenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Chlorodibromomethane	BDL	0.0010	mg/l	8260B	11/24/03	1
Chloroethane	BDL	0.0010	mg/l	8260B	11/24/03	1
2-Chloroethyl vinyl ether	BDL	0.050	mg/l	8260B	11/24/03	1
Chloroform	BDL	0.0050	mg/l	8260B	11/24/03	1
Chloromethane	BDL	0.0010	mg/l	8260B	11/24/03	1
2-Chlorotoluene	BDL	0.0010	mg/l	8260B	11/24/03	1
4-Chlorotoluene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2-Dibromo-3-Chloropropane	BDL	0.0020	mg/l	8260B	11/24/03	1
1,2-Dibromoethane	BDL	0.0010	mg/l	8260B	11/24/03	1
Dibromomethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2-Dichlorobenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,3-Dichlorobenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,4-Dichlorobenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Dichlorodifluoromethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1-Dichloroethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2-Dichloroethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1-Dichloroethene	BDL	0.0010	mg/l	8260B	11/24/03	1
cis-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	11/24/03	1
trans-1,2-Dichloroethene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2-Dichloropropane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1-Dichloropropene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,3-Dichloropropane	BDL	0.0010	mg/l	8260B	11/24/03	1
cis-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	11/24/03	1
trans-1,3-Dichloropropene	BDL	0.0010	mg/l	8260B	11/24/03	1
2,2-Dichloropropane	BDL	0.0010	mg/l	8260B	11/24/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233



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REPORT OF ANALYSIS

Mr. Link Thrower
Chemical & Environmental Technology
102-A Woodwinds Industrial Ct.
Cary, NC 27511

November 25, 2003

Date Received : November 22, 2003
Description : EW Williams Site
Sample ID : NW-4 212726
Collected By : Chris Mason
Collection Date : 11/21/03 11:45

ESC Sample # : L135722-04

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Di-isopropyl ether	BDL	0.0010	mg/l	8260B	11/24/03	1
Ethylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Hexachlorobutadiene	BDL	0.0010	mg/l	8260B	11/24/03	1
Isopropylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
p-Isopropyltoluene	BDL	0.0010	mg/l	8260B	11/24/03	1
2-Butanone (MEK)	BDL	0.050	mg/l	8260B	11/24/03	1
Methylene Chloride	BDL	0.0050	mg/l	8260B	11/24/03	1
4-Methyl-2-pentanone (MIBK)	BDL	0.050	mg/l	8260B	11/24/03	1
Methyl tert-butyl ether	BDL	0.0010	mg/l	8260B	11/24/03	1
Naphthalene	BDL	0.0050	mg/l	8260B	11/24/03	1
n-Propylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Styrene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1,1,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1,2,2-Tetrachloroethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1,2-Trichloro-1,2,2-trifluoro	BDL	0.0010	mg/l	8260B	11/24/03	1
Tetrachloroethene	BDL	0.0010	mg/l	8260B	11/24/03	1
Toluene	BDL	0.0050	mg/l	8260B	11/24/03	1
1,2,3-Trichlorobenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2,4-Trichlorobenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1,1-Trichloroethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,1,2-Trichloroethane	BDL	0.0010	mg/l	8260B	11/24/03	1
Trichloroethene	BDL	0.0010	mg/l	8260B	11/24/03	1
Trichlorofluoromethane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2,3-Trichloropropane	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2,4-Trimethylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,2,3-Trimethylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
1,3,5-Trimethylbenzene	BDL	0.0010	mg/l	8260B	11/24/03	1
Vinyl chloride	BDL	0.0010	mg/l	8260B	11/24/03	1
Xylenes, Total	BDL	0.0030	mg/l	8260B	11/24/03	1
Surrogate Recovery						
Toluene-d8	99.		% Rec.	8260B	11/24/03	1
Dibromofluoromethane	100		% Rec.	8260B	11/24/03	1
4-Bromofluorobenzene	99.		% Rec.	8260B	11/24/03	1

Cheli Boucher
Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01

KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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Attachment A
List of Analytes with QC Qualifiers

Sample #	Analyte	Qualifier
L135722-01	Acrolein	J4
	Bromomethane	J4J5
	Vinyl chloride	J4
L135722-02	Acetone	J3
	Acrolein	J4
	Bromomethane	J4
	2-Butanone (MEK)	J3
	1,1,2,2-Tetrachloroethane	J3
	1,2,3-Trichloropropane	J3
	Vinyl chloride	J4
L135722-03	Acetone	J3
	Acrolein	J4
	Bromomethane	J4
	2-Butanone (MEK)	J3
	1,1,2,2-Tetrachloroethane	J3
	1,2,3-Trichloropropane	J3
	Vinyl chloride	J4
L135722-04	Acetone	J3
	Acrolein	J4
	Bromomethane	J4
	2-Butanone (MEK)	J3
	1,1,2,2-Tetrachloroethane	J3
	1,2,3-Trichloropropane	J3
	Vinyl chloride	J4

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable unless qualified as 'R' (Rejected).

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

Control Limits

2-Fluorophenol	31-119	Nitrobenzene-d5	43-118	Dibromofluoromethane	79-126	83-119
Phenol-d5	12-134	2-Fluorobiphenyl	45-128	Toluene-d8	81-114	82-116
2,4,6-Tribromophenol	51-141	Terphenyl-d14	43-137	4-Bromofluorobenzene	65-129	72-126

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.



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Est. 1970

Chemical & Environmental Technology Inc.
Mr. Link Thrower
102-A Woodwinds Industrial Ct.

Quality Assurance Report Level II

Cary, NC 27511

L135722

November 25, 2003

Analyte	Result	Laboratory Blank		Date Analyzed	Batch
		Units			
1,1,1,2-Tetrachloroethane	< .001	mg/l		11/24/03 10:47	WG134447
1,1,1-Trichloroethane	< .001	mg/l		11/24/03 10:47	WG134447
1,1,2,2-Tetrachloroethane	< .001	mg/l		11/24/03 10:47	WG134447
1,1,2-Trichloro-1,2,2-trifluoroethane	< .001	mg/l		11/24/03 10:47	WG134447
1,1,2-Trichloroethane	< .001	mg/l		11/24/03 10:47	WG134447
1,1-Dichloroethane	< .001	mg/l		11/24/03 10:47	WG134447
1,1-Dichloroethene	< .001	mg/l		11/24/03 10:47	WG134447
1,1-Dichloropropene	< .001	mg/l		11/24/03 10:47	WG134447
1,2,3-Trichlorobenzene	< .001	mg/l		11/24/03 10:47	WG134447
1,2,3-Trichloropropane	< .001	mg/l		11/24/03 10:47	WG134447
1,2,3-Trimethylbenzene	< .001	mg/l		11/24/03 10:47	WG134447
1,2,4-Trichlorobenzene	< .001	mg/l		11/24/03 10:47	WG134447
1,2,4-Trimethylbenzene	< .001	mg/l		11/24/03 10:47	WG134447
1,2-Dibromo-3-Chloropropane	< .002	mg/l		11/24/03 10:47	WG134447
1,2-Dibromoethane	< .001	mg/l		11/24/03 10:47	WG134447
1,2-Dichlorobenzene	< .001	mg/l		11/24/03 10:47	WG134447
1,2-Dichloroethane	< .001	mg/l		11/24/03 10:47	WG134447
1,2-Dichloropropane	< .001	mg/l		11/24/03 10:47	WG134447
1,3,5-Trimethylbenzene	< .001	mg/l		11/24/03 10:47	WG134447
1,3-Dichlorobenzene	< .001	mg/l		11/24/03 10:47	WG134447
1,3-Dichloropropane	< .001	mg/l		11/24/03 10:47	WG134447
1,4-Dichlorobenzene	< .001	mg/l		11/24/03 10:47	WG134447
2,2-Dichloropropane	< .001	mg/l		11/24/03 10:47	WG134447
2-Butanone (MEK)	< .025	mg/l		11/24/03 10:47	WG134447
2-Chloroethyl vinyl ether	< .001	mg/l		11/24/03 10:47	WG134447
2-Chlorotoluene	< .001	mg/l		11/24/03 10:47	WG134447
4-Chlorotoluene	< .001	mg/l		11/24/03 10:47	WG134447
4-Methyl-2-pentanone (MIBK)	< .05	mg/l		11/24/03 10:47	WG134447
Acetone	< .001	mg/l		11/24/03 10:47	WG134447
Acrolein	< .001	mg/l		11/24/03 10:47	WG134447
Acrylonitrile	0.00151	mg/l		11/24/03 10:47	WG134447
Benzene	< .001	mg/l		11/24/03 10:47	WG134447
Bromobenzene	< .001	mg/l		11/24/03 10:47	WG134447
Bromodichloromethane	< .001	mg/l		11/24/03 10:47	WG134447
Bromoform	< .001	mg/l		11/24/03 10:47	WG134447
Bromomethane	< .001	mg/l		11/24/03 10:47	WG134447
Carbon tetrachloride	< .001	mg/l		11/24/03 10:47	WG134447
Chlorobenzene	< .001	mg/l		11/24/03 10:47	WG134447
Chlorodibromomethane	< .001	mg/l		11/24/03 10:47	WG134447
Chloroethane	< .001	mg/l		11/24/03 10:47	WG134447
Chloroform	< .005	mg/l		11/24/03 10:47	WG134447
Chloromethane	< .001	mg/l		11/24/03 10:47	WG134447
cis-1,2-Dichloroethene	< .001	mg/l		11/24/03 10:47	WG134447
cis-1,3-Dichloropropene	< .001	mg/l		11/24/03 10:47	WG134447
Di-isopropyl ether	< .001	mg/l		11/24/03 10:47	WG134447
Dibromomethane	< .001	mg/l		11/24/03 10:47	WG134447
Dichlorodifluoromethane	< .001	mg/l		11/24/03 10:47	WG134447
Ethylbenzene	< .001	mg/l		11/24/03 10:47	WG134447
Hexachlorobutadiene	< .001	mg/l		11/24/03 10:47	WG134447
Isopropylbenzene	< .001	mg/l		11/24/03 10:47	WG134447
Methyl tert-butyl ether	< .001	mg/l		11/24/03 10:47	WG134447
Methylene Chloride	< .005	mg/l		11/24/03 10:47	WG134447
n-Butylbenzene	< .001	mg/l		11/24/03 10:47	WG134447
n-Propylbenzene	< .001	mg/l		11/24/03 10:47	WG134447
Naphthalene	< .005	mg/l		11/24/03 10:47	WG134447
p-Isopropyltoluene	< .001	mg/l		11/24/03 10:47	WG134447
sec-Butylbenzene	< .001	mg/l		11/24/03 10:47	WG134447
Styrene	< .001	mg/l		11/24/03 10:47	WG134447
tert-Butylbenzene	< .001	mg/l		11/24/03 10:47	WG134447
Tetrachloroethene	< .001	mg/l		11/24/03 10:47	WG134447



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Est. 1970

Chemical & Environmental Technology Inc.
Mr. Link Thrower
102-A Woodwinds Industrial Ct.

Quality Assurance Report Level II

Cary, NC 27511

L135722

November 25, 2003

Toluene	< .005	mg/l	11/24/03 10:47	WG134447
Analyte	Result	Laboratory Blank Units	Date Analyzed	Batch
trans-1,2-Dichloroethene	< .001	mg/l	11/24/03 10:47	WG134447
trans-1,3-Dichloropropene	< .001	mg/l	11/24/03 10:47	WG134447
Trichloroethene	< .001	mg/l	11/24/03 10:47	WG134447
Trichlorofluoromethane	< .001	mg/l	11/24/03 10:47	WG134447
Vinyl chloride	< .001	mg/l	11/24/03 10:47	WG134447
Xylenes, Total	< .003	mg/l	11/24/03 10:47	WG134447

Analyte	Units	Laboratory Control Known Val	Sample Result	% Rec	Limit	Batch
1,1,1,2-Tetrachloroethane	mg/l	.02	0.0214	107.	84-128	WG134447
1,1,1-Trichloroethane	mg/l	.02	0.0216	108.	71-122	WG134447
1,1,2,2-Tetrachloroethane	mg/l	.02	0.0221	110.	78-120	WG134447
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/l	.02	0.0228	114.	37-127	WG134447
1,1,2-Trichloroethane	mg/l	.02	0.0206	103.	82-117	WG134447
1,1-Dichloroethane	mg/l	.02	0.0210	105.	59-135	WG134447
1,1-Dichloroethene	mg/l	.02	0.0274	137.	60-166	WG134447
1,1-Dichloropropene	mg/l	.02	0.0222	111.	67-132	WG134447
1,2,3-Trichlorobenzene	mg/l	.02	0.0215	107.	81-122	WG134447
1,2,3-Trichloropropane	mg/l	.02	0.0198	99.0	78-122	WG134447
1,2,3-Trimethylbenzene	mg/l	.02	0.0167	83.7	64-100	WG134447
1,2,4-Trichlorobenzene	mg/l	.02	0.0240	120.	78-132	WG134447
1,2,4-Trimethylbenzene	mg/l	.02	0.0228	114.	82-117	WG134447
1,2-Dibromo-3-Chloropropane	mg/l	.02	0.0204	102.	58-140	WG134447
1,2-Dibromoethane	mg/l	.02	0.0206	103.	79-121	WG134447
1,2-Dichlorobenzene	mg/l	.05	0.0206	41.1	83-113	WG134447
1,2-Dichloroethane	mg/l	.02	0.0212	106.	81-122	WG134447
1,2-Dichloropropane	mg/l	.02	0.0199	99.5	74-125	WG134447
1,3,5-Trimethylbenzene	mg/l	.02	0.0228	114.	80-118	WG134447
1,3-Dichlorobenzene	mg/l	.05	0.0233	46.6	80-124	WG134447
1,3-Dichloropropane	mg/l	.02	0.0212	106.	86-120	WG134447
1,4-Dichlorobenzene	mg/l	.05	0.0219	43.8	84-115	WG134447
2,2-Dichloropropane	mg/l	.02	0.0241	121.	71-131	WG134447
2-Butanone (MEK)	mg/l	.1	0.0710	71.0	25-137	WG134447
2-Chloroethyl vinyl ether	mg/l	.1	0.0884	88.4	15-161	WG134447
2-Chlorotoluene	mg/l	.02	0.0221	111.	79-112	WG134447
4-Chlorotoluene	mg/l	.02	0.0223	111.	82-116	WG134447
4-Methyl-2-pentanone (MIBK)	mg/l	.1	0.123	123.	57-145	WG134447
Acetone	mg/l	.1	0.0597	59.7	14-115	WG134447
Acrolein	mg/l	.1	0.0895	89.5	16-83	WG134447
Acrylonitrile	mg/l	.1	0.109	109.	32-142	WG134447
Benzene	mg/l	.02	0.0222	111.	66-127	WG134447
Bromobenzene	mg/l	.02	0.0224	112.	79-127	WG134447
Bromodichloromethane	mg/l	.02	0.0198	98.9	76-117	WG134447
Bromoform	mg/l	.02	0.0230	115.	72-125	WG134447
Bromomethane	mg/l	.02	0.0396	198.	25-170	WG134447
Carbon tetrachloride	mg/l	.02	0.0236	118.	65-127	WG134447
Chlorobenzene	mg/l	.02	0.0214	107.	79-117	WG134447
Chlorodibromomethane	mg/l	.02	0.0192	96.2	76-115	WG134447
Chloroethane	mg/l	.02	0.0190	95.0	37-130	WG134447
Chloroform	mg/l	.02	0.0211	106.	70-119	WG134447
Chloromethane	mg/l	.02	0.0200	100.	39-109	WG134447
cis-1,2-Dichloroethene	mg/l	.02	0.0197	98.4	72-128	WG134447
cis-1,3-Dichloropropene	mg/l	.02	0.0240	120.	86-137	WG134447
Di-isopropyl ether	mg/l	.02	0.0196	98.2	54-147	WG134447
Dibromomethane	mg/l	.02	0.0203	102.	81-117	WG134447
Dichlorodifluoromethane	mg/l	.02	0.0198	98.8	14-133	WG134447
Ethylbenzene	mg/l	.02	0.0221	111.	75-117	WG134447
Hexachlorobutadiene	mg/l	.02	0.0227	114.	68-122	WG134447



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Isopropylbenzene	mg/l	.02	0.0202	101.	67-113	WG134447
Analyte	Units	Laboratory Control Known Val	Sample Result	% Rec	Limit	Batch
Methyl tert-butyl ether	mg/l	.02	0.0187	93.3	65-128	WG134447
Methylene Chloride	mg/l	.02	0.0232	116.	60-127	WG134447
n-Butylbenzene	mg/l	.02	0.0237	119.	74-125	WG134447
n-Propylbenzene	mg/l	.02	0.0235	117.	74-120	WG134447
Naphthalene	mg/l	.05	0.0207	41.4	51-127	WG134447
p-Isopropyltoluene	mg/l	.02	0.0236	118.	74-122	WG134447
sec-Butylbenzene	mg/l	.02	0.0220	110.	66-118	WG134447
Styrene	mg/l	.02	0.0216	108.	78-114	WG134447
tert-Butylbenzene	mg/l	.02	0.0226	113.	69-121	WG134447
Tetrachloroethene	mg/l	.02	0.0242	121.	71-132	WG134447
Toluene	mg/l	.02	0.0207	104.	68-122	WG134447
trans-1,2-Dichloroethene	mg/l	.02	0.0243	121.	65-141	WG134447
trans-1,3-Dichloropropene	mg/l	.02	0.0220	110.	82-132	WG134447
Trichloroethene	mg/l	.02	0.0215	107.	81-129	WG134447
Trichlorofluoromethane	mg/l	.02	0.0188	94.0	46-94	WG134447
Vinyl chloride	mg/l	.02	0.0202	101.	40-95	WG134447
Xylenes, Total	mg/l	.06	0.0654	109.	78-114	WG134447

Analyte	Units	Laboratory Control LCSD Res	Sample Duplicate Ref Res	RPD	Limit	Ref Samp	Batch
1,1,1,2-Tetrachloroethane	mg/l	0.0209	0.0214	2.51	16	R179790-5	WG134447
1,1,1-Trichloroethane	mg/l	0.0210	0.0216	3.05	28	R179790-5	WG134447
1,1,2,2-Tetrachloroethane	mg/l	0.0198	0.0221	10.9	10	R179790-5	WG134447
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/l	0.0219	0.0228	4.21	40	R179790-5	WG134447
1,1,2-Trichloroethane	mg/l	0.0191	0.0206	7.20	16	R179790-5	WG134447
1,1-Dichloroethane	mg/l	0.0201	0.0210	4.52	17	R179790-5	WG134447
1,1-Dichloroethene	mg/l	0.0256	0.0274	6.68	36	R179790-5	WG134447
1,1-Dichloropropene	mg/l	0.0215	0.0222	3.34	33	R179790-5	WG134447
1,2,3-Trichlorobenzene	mg/l	0.0221	0.0215	2.76	17	R179790-5	WG134447
1,2,3-Trichloropropane	mg/l	0.0170	0.0198	15.2	13	R179790-5	WG134447
1,2,3-Trimethylbenzene	mg/l	0.0162	0.0167	3.53	20	R179790-5	WG134447
1,2,4-Trichlorobenzene	mg/l	0.0233	0.0240	3.00	25	R179790-5	WG134447
1,2,4-Trimethylbenzene	mg/l	0.0214	0.0228	6.43	29	R179790-5	WG134447
1,2-Dibromo-3-Chloropropane	mg/l	0.0189	0.0204	7.64	21	R179790-5	WG134447
1,2-Dibromoethane	mg/l	0.0189	0.0206	8.76	19	R179790-5	WG134447
1,2-Dichlorobenzene	mg/l	0.0201	0.0206	2.02	16	R179790-5	WG134447
1,2-Dichloroethane	mg/l	0.0195	0.0212	8.56	13	R179790-5	WG134447
1,2-Dichloropropane	mg/l	0.0195	0.0199	2.13	14	R179790-5	WG134447
1,3,5-Trimethylbenzene	mg/l	0.0216	0.0228	5.45	28	R179790-5	WG134447
1,3-Dichlorobenzene	mg/l	0.0221	0.0233	5.16	25	R179790-5	WG134447
1,3-Dichloropropane	mg/l	0.0194	0.0212	9.01	15	R179790-5	WG134447
1,4-Dichlorobenzene	mg/l	0.0212	0.0219	3.34	18	R179790-5	WG134447
2,2-Dichloropropane	mg/l	0.0233	0.0241	3.76	31	R179790-5	WG134447
2-Butanone (MEK)	mg/l	0.0632	0.0710	11.6	10	R179790-5	WG134447
2-Chloroethyl vinyl ether	mg/l	0.0942	0.0884	6.31	25	R179790-5	WG134447
2-Chlorotoluene	mg/l	0.0210	0.0221	5.34	24	R179790-5	WG134447
4-Chlorotoluene	mg/l	0.0210	0.0223	5.92	22	R179790-5	WG134447
4-Methyl-2-pentanone (MIBK)	mg/l	0.109	0.123	12.0	12	R179790-5	WG134447
Acetone	mg/l	0.0478	0.0597	22.2	20	R179790-5	WG134447
Acrolein	mg/l	0.0884	0.0895	1.20	34	R179790-5	WG134447
Acrylonitrile	mg/l	0.0970	0.109	11.5	13	R179790-5	WG134447
Benzene	mg/l	0.0213	0.0222	3.82	20	R179790-5	WG134447
Bromobenzene	mg/l	0.0212	0.0224	5.55	22	R179790-5	WG134447
Bromodichloromethane	mg/l	0.0189	0.0198	4.34	13	R179790-5	WG134447
Bromoform	mg/l	0.0208	0.0230	10.1	18	R179790-5	WG134447
Bromomethane	mg/l	0.0417	0.0396	5.29	20	R179790-5	WG134447
Carbon tetrachloride	mg/l	0.0219	0.0236	7.44	36	R179790-5	WG134447
Chlorobenzene	mg/l	0.0204	0.0214	4.82	21	R179790-5	WG134447



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Chlorodibromomethane	mg/l	0.0184	0.0192	4.68	17	R179790-5	WG134447
			</				

Analyte	Units	MS	Res	Ref	TV	% Rec	Limit	Ref Samp	Batch
1,1,1,2-Tetrachloroethane	mg/l	0.0189	0.00	0.02	94.7	67-139	L135722-01	WG134447	
1,1,1-Trichloroethane	mg/l	0.0197	0.00	0.02	98.4	46-143	L135722-01	WG134447	
1,1,2,2-Tetrachloroethane	mg/l	0.0196	0.00	0.02	97.9	70-116	L135722-01	WG134447	
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/l	0.0195	0.00	0.02	97.7	30-134	L135722-01	WG134447	
1,1,2-Trichloroethane	mg/l	0.0191	0.00	0.02	95.5	70-122	L135722-01	WG134447	
1,1-Dichloroethane	mg/l	0.0188	0.00	0.02	94.2	47-138	L135722-01	WG134447	
1,1-Dichloroethene	mg/l	0.0222	0.00	0.02	111.	56-162	L135722-01	WG134447	
1,1-Dichloropropene	mg/l	0.0197	0.00	0.02	98.5	49-140	L135722-01	WG134447	
1,2,3-Trichlorobenzene	mg/l	0.0179	0.00	0.02	89.5	63-124	L135722-01	WG134447	
1,2,3-Trichloropropane	mg/l	0.0159	0.00	0.02	79.4	66-124	L135722-01	WG134447	
1,2,3-Trimethylbenzene	mg/l	0.0143	0.00	0.02	71.5	51-109	L135722-01	WG134447	
1,2,4-Trichlorobenzene	mg/l	0.0172	0.00	0.02	86.2	52-130	L135722-01	WG134447	
1,2,4-Trimethylbenzene	mg/l	0.0186	0.00	0.02	93.2	62-126	L135722-01	WG134447	
1,2-Dibromo-3-Chloropropane	mg/l	0.0130	0.00	0.02	65.1	48-122	L135722-01	WG134447	
1,2-Dibromoethane	mg/l	0.0179	0.00	0.02	89.3	74-121	L135722-01	WG134447	
1,2-Dichlorobenzene	mg/l	0.0176	0.00	0.02	87.9	65-119	L135722-01	WG134447	
1,2-Dichloroethane	mg/l	0.0188	0.00	0.02	93.8	48-148	L135722-01	WG134447	
1,2-Dichloropropane	mg/l	0.0175	0.00	0.02	87.3	66-122	L135722-01	WG134447	
1,3,5-Trimethylbenzene	mg/l	0.0183	0.00	0.02	91.3	60-127	L135722-01	WG134447	
1,3-Dichlorobenzene	mg/l	0.0190	0.00	0.02	95.1	62-122	L135722-01	WG134447	
1,3-Dichloropropane	mg/l	0.0190	0.00	0.02	94.9	77-121	L135722-01	WG134447	
1,4-Dichlorobenzene	mg/l	0.0176	0.00	0.02	88.0	60-123	L135722-01	WG134447	
2,2-Dichloropropane	mg/l	0.0202	0.00	0.02	101.	40-148	L135722-01	WG134447	
2-Butanone (MEK)	mg/l	0.0553	0.00	0.1	55.3	26-114	L135722-01	WG134447	
2-Chloroethyl vinyl ether	mg/l	0.00	0.00	0.1	0.0	0-100	L135722-01	WG134447	
2-Chlorotoluene	mg/l	0.0183	0.00	0.02	91.6	62-120	L135722-01	WG134447	
4-Chlorotoluene	mg/l	0.0184	0.00	0.02	91.9	63-123	L135722-01	WG134447	



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4-Methyl-2-pentanone (MIBK) mg/l 0.0978 0.00 0.1 97.8 56-133 L135722-01 WG134447

Analyte	Units	MS	Res	Matrix Spike Ref Res	TV	% Rec	Limit	Ref Samp	Batch
Acetone	mg/l	0.0363	0.00	0.1	36.3	13-145	L135722-01	WG134447	
Acrolein	mg/l	0.0626	0.00	0.1	62.6	14-90	L135722-01	WG134447	
Acrylonitrile	mg/l	0.0880	0.00	0.1	88.0	33-128	L135722-01	WG134447	
Benzene	mg/l	0.0198	0.00	0.02	98.9	55-130	L135722-01	WG134447	
Bromobenzene	mg/l	0.0201	0.00	0.02	100.	67-134	L135722-01	WG134447	
Bromodichloromethane	mg/l	0.0186	0.00	0.02	93.2	57-126	L135722-01	WG134447	
Bromoform	mg/l	0.0189	0.00	0.02	94.7	52-130	L135722-01	WG134447	
Bromomethane	mg/l	0.0370	0.00	0.02	185.	17-150	L135722-01	WG134447	
Carbon tetrachloride	mg/l	0.0204	0.00	0.02	102.	42-141	L135722-01	WG134447	
Chlorobenzene	mg/l	0.0191	0.00	0.02	95.6	66-125	L135722-01	WG134447	
Chlorodibromomethane	mg/l	0.0171	0.00	0.02	85.7	58-123	L135722-01	WG134447	
Chloroethane	mg/l	0.0158	0.00	0.02	78.8	29-131	L135722-01	WG134447	
Chloroform	mg/l	0.0191	0.00	0.02	95.4	46-136	L135722-01	WG134447	
Chloromethane	mg/l	0.0165	0.00	0.02	82.3	26-120	L135722-01	WG134447	
cis-1,2-Dichloroethene	mg/l	0.0176	0.00	0.02	87.9	59-133	L135722-01	WG134447	
cis-1,3-Dichloropropene	mg/l	0.0203	0.00	0.02	102.	77-132	L135722-01	WG134447	
Di-isopropyl ether	mg/l	0.0180	0.00	0.02	90.1	47-141	L135722-01	WG134447	
Dibromomethane	mg/l	0.0171	0.00	0.02	85.3	64-119	L135722-01	WG134447	
Dichlorodifluoromethane	mg/l	0.0148	0.00	0.02	73.8	13-113	L135722-01	WG134447	
Ethylbenzene	mg/l	0.0182	0.00	0.02	91.1	61-123	L135722-01	WG134447	
Hexachlorobutadiene	mg/l	0.0166	0.00	0.02	83.1	39-138	L135722-01	WG134447	
Isopropylbenzene	mg/l	0.0168	0.00	0.02	83.8	56-120	L135722-01	WG134447	
Methyl tert-butyl ether	mg/l	0.0197	0.0020	0.02	88.7	43-140	L135722-01	WG134447	
Methylene Chloride	mg/l	0.0222	0.00	0.02	111.	55-123	L135722-01	WG134447	
n-Butylbenzene	mg/l	0.0173	0.00	0.02	86.5	43-139	L135722-01	WG134447	
n-Propylbenzene	mg/l	0.0190	0.00	0.02	94.9	57-127	L135722-01	WG134447	
Naphthalene	mg/l	0.0201	0.00	0.02	100.	39-122	L135722-01	WG134447	
p-Isopropyltoluene	mg/l	0.0187	0.00	0.02	93.4	58-127	L135722-01	WG134447	
sec-Butylbenzene	mg/l	0.0181	0.00	0.02	90.7	55-124	L135722-01	WG134447	
Styrene	mg/l	0.0185	0.00	0.02	92.7	61-119	L135722-01	WG134447	
tert-Butylbenzene	mg/l	0.0194	0.00	0.02	96.9	58-129	L135722-01	WG134447	
Tetrachloroethene	mg/l	0.0194	0.00	0.02	96.8	49-144	L135722-01	WG134447	
Toluene	mg/l	0.0179	0.00	0.02	89.7	59-123	L135722-01	WG134447	
trans-1,2-Dichloroethene	mg/l	0.0212	0.00	0.02	106.	53-145	L135722-01	WG134447	
trans-1,3-Dichloropropene	mg/l	0.0209	0.00	0.02	105.	69-125	L135722-01	WG134447	
Trichloroethene	mg/l	0.0191	0.00	0.02	95.3	61-141	L135722-01	WG134447	
Trichlorofluoromethane	mg/l	0.0162	0.00	0.02	81.0	24-113	L135722-01	WG134447	
Vinyl chloride	mg/l	0.0167	0.00	0.02	83.7	26-110	L135722-01	WG134447	
Xylenes, Total	mg/l	0.0546	0.00	0.06	90.9	64-119	L135722-01	WG134447	

Analyte	Matrix Spike Duplicate					Limit	%Rec	Ref Samp	Batch
	Units	MSD	Res	Ref Res	RPD				
1,1,1,2-Tetrachloroethane	mg/l		0.0201	0.0189	5.85	16	100.	L135722-01	WG134447
1,1,1-Trichloroethane	mg/l		0.0204	0.0197	3.64	28	102.	L135722-01	WG134447
1,1,2,2-Tetrachloroethane	mg/l		0.0193	0.0196	1.29	10	96.7	L135722-01	WG134447
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/l		0.0210	0.0195	7.06	40	105.	L135722-01	WG134447
1,1,2-Trichloroethane	mg/l		0.0190	0.0191	0.525	16	95.0	L135722-01	WG134447
1,1-Dichloroethane	mg/l		0.0197	0.0188	4.36	17	98.4	L135722-01	WG134447
1,1-Dichloroethene	mg/l		0.0237	0.0222	6.37	36	118.	L135722-01	WG134447
1,1-Dichloropropene	mg/l		0.0202	0.0197	2.70	33	101.	L135722-01	WG134447
1,2,3-Trichlorobenzene	mg/l		0.0181	0.0179	1.11	17	90.5	L135722-01	WG134447
1,2,3-Trichloropropane	mg/l		0.0163	0.0159	2.73	13	81.6	L135722-01	WG134447
1,2,3-Trimethylbenzene	mg/l		0.0148	0.0143	3.17	20	73.8	L135722-01	WG134447
1,2,4-Trichlorobenzene	mg/l		0.0178	0.0172	3.31	25	89.1	L135722-01	WG134447
1,2,4-Trimethylbenzene	mg/l		0.0189	0.0186	1.33	29	94.4	L135722-01	WG134447
1,2-Dibromo-3-Chloropropane	mg/l		0.0155	0.0130	17.2	21	77.4	L135722-01	WG134447
1,2-Dibromoethane	mg/l		0.0176	0.0179	1.41	19	88.0	L135722-01	WG134447
1,2-Dichlorobenzene	mg/l		0.0180	0.0176	2.36	16	90.0	L135722-01	WG134447



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Est. 1970

Chemical & Environmental Technology Inc.
Mr. Link Thrower
102-A Woodwinds Industrial Ct.

Quality Assurance Report
Level II

Cary, NC 27511

L135722

November 25, 2003

1,2-Dichloroethane mg/l 0.0190 0.0188 1.06 13 94.8 L135722-01 WG134447

Analyte	Matrix Spike Duplicate					Limit	%Rec	Ref Samp	Batch
	Units	MSD	Res	Ref Res	RPD				
1,2-Dichloropropane	mg/l	0.0179	0.0175	2.43	14	89.4	L135722-01	WG134447	
1,3,5-Trimethylbenzene	mg/l	0.0189	0.0183	3.55	28	94.6	L135722-01	WG134447	
1,3-Dichlorobenzene	mg/l	0.0195	0.0190	2.65	25	97.6	L135722-01	WG134447	
1,3-Dichloropropane	mg/l	0.0185	0.0190	2.62	15	92.4	L135722-01	WG134447	
1,4-Dichlorobenzene	mg/l	0.0186	0.0176	5.69	18	93.1	L135722-01	WG134447	
2,2-Dichloropropane	mg/l	0.0210	0.0202	4.03	31	105.	L135722-01	WG134447	
2-Butanone (MEK)	mg/l	0.0534	0.0553	3.40	10	53.4	L135722-01	WG134447	
2-Chloroethyl vinyl ether	mg/l	0.00	0.00	0.00	25	0.00	L135722-01	WG134447	
2-Chlorotoluene	mg/l	0.0188	0.0183	2.37	24	93.8	L135722-01	WG134447	
4-Chlorotoluene	mg/l	0.0183	0.0184	0.601	22	91.3	L135722-01	WG134447	
4-Methyl-2-pentanone (MIBK)	mg/l	0.0987	0.0978	0.967	12	98.7	L135722-01	WG134447	
Acetone	mg/l	0.0363	0.0363	0.220	23	36.3	L135722-01	WG134447	
Acrolein	mg/l	0.0595	0.0626	5.18	34	59.5	L135722-01	WG134447	
Acrylonitrile	mg/l	0.0871	0.0880	1.04	13	87.1	L135722-01	WG134447	
Benzene	mg/l	0.0202	0.0198	2.30	20	101.	L135722-01	WG134447	
Bromobenzene	mg/l	0.0196	0.0201	2.47	22	98.0	L135722-01	WG134447	
Bromodichloromethane	mg/l	0.0185	0.0186	0.646	13	92.6	L135722-01	WG134447	
Bromoform	mg/l	0.0178	0.0189	5.93	18	89.2	L135722-01	WG134447	
Bromomethane	mg/l	0.0423	0.0370	13.4	20	212.	L135722-01	WG134447	
Carbon tetrachloride	mg/l	0.0209	0.0204	2.57	36	105.	L135722-01	WG134447	
Chlorobenzene	mg/l	0.0194	0.0191	1.66	21	97.2	L135722-01	WG134447	
Chlorodibromomethane	mg/l	0.0165	0.0171	3.68	17	82.6	L135722-01	WG134447	
Chloroethane	mg/l	0.0167	0.0158	5.73	25	83.5	L135722-01	WG134447	
Chloroform	mg/l	0.0196	0.0191	2.59	26	97.9	L135722-01	WG134447	
Chloromethane	mg/l	0.0171	0.0165	3.70	31	85.4	L135722-01	WG134447	
cis-1,2-Dichloroethene	mg/l	0.0183	0.0176	3.85	18	91.4	L135722-01	WG134447	
cis-1,3-Dichloropropene	mg/l	0.0203	0.0203	0.0492	17	102.	L135722-01	WG134447	
Di-isopropyl ether	mg/l	0.0185	0.0180	2.90	13	92.7	L135722-01	WG134447	
Dibromomethane	mg/l	0.0174	0.0171	1.92	12	87.0	L135722-01	WG134447	
Dichlorodifluoromethane	mg/l	0.0152	0.0148	2.61	28	75.8	L135722-01	WG134447	
Ethylbenzene	mg/l	0.0187	0.0182	2.71	25	93.6	L135722-01	WG134447	
Hexachlorobutadiene	mg/l	0.0173	0.0166	4.12	36	86.6	L135722-01	WG134447	
Isopropylbenzene	mg/l	0.0174	0.0168	3.98	29	87.2	L135722-01	WG134447	
Methyl tert-butyl ether	mg/l	0.0192	0.0197	2.62	16	86.1	L135722-01	WG134447	
Methylene Chloride	mg/l	0.0226	0.0222	1.43	16	113.	L135722-01	WG134447	
n-Butylbenzene	mg/l	0.0183	0.0173	5.84	30	91.7	L135722-01	WG134447	
n-Propylbenzene	mg/l	0.0191	0.0190	0.892	30	95.7	L135722-01	WG134447	
Naphthalene	mg/l	0.0178	0.0201	11.9	39	89.2	L135722-01	WG134447	
p-Isopropyltoluene	mg/l	0.0192	0.0187	2.80	36	96.1	L135722-01	WG134447	
sec-Butylbenzene	mg/l	0.0187	0.0181	3.09	32	93.6	L135722-01	WG134447	
Styrene	mg/l	0.0186	0.0185	0.108	21	92.8	L135722-01	WG134447	
tert-Butylbenzene	mg/l	0.0199	0.0194	2.85	30	99.7	L135722-01	WG134447	
Tetrachloroethene	mg/l	0.0198	0.0194	2.15	32	98.9	L135722-01	WG134447	
Toluene	mg/l	0.0183	0.0179	2.15	17	91.6	L135722-01	WG134447	
trans-1,2-Dichloroethene	mg/l	0.0224	0.0212	5.36	27	112.	L135722-01	WG134447	
trans-1,3-Dichloropropene	mg/l	0.0205	0.0209	1.98	16	103.	L135722-01	WG134447	
Trichloroethene	mg/l	0.0196	0.0191	2.90	25	98.1	L135722-01	WG134447	
Trichlorofluoromethane	mg/l	0.0175	0.0162	7.49	41	87.3	L135722-01	WG134447	
Vinyl chloride	mg/l	0.0176	0.0167	5.01	36	88.0	L135722-01	WG134447	
Xylenes, Total	mg/l	0.0555	0.0546	1.65	21	92.5	L135722-01	WG134447	

Batch number /Run number / Sample number cross reference

WG134447: R179790: L135722-01 02 03 04

* See Attachment B of standard report for list of qualifiers.

* Calculations are performed prior to rounding of reported values .



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Quality Assurance Report
Level II

Cary, NC 27511

L135722

November 25, 2003

ESC Level 2 Data Package

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.

